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ALEXANDER WILSON.

I. THE AUDUBON CONTROVERSY.

BY FRANK L. BURNS.

The brief, almost accidental, meeting of Alexander Wilson and John James Audubon in the latter's counting-room, Louisville, Kentucky, March 9th, 1810, and the ill-considered if not brutal accusations and recriminations following, proved the fruitful source of subsequent contentions not at all creditable to those involved. On Alexander Wilson, who had left unsaid a single unkind word of his rival; long after death had claimed him for his own and personal vindication was out of the question; the offense was onerously placed. On the very last day's journey to that most disappointing town of Louisville, he was exposed to a storm from which he could not protect himself, because his greatcoat was in request to cover his precious bird skins![1]

The exposure and privations of that western trip resulted in the contraction of dysentery, fatal to him in a few brief years. In his poem descriptive of the journey, we have at least a pitiful truth in these lines:

"Through western forests, deep and drear,
Far from the haunts of science thrown,
My long laborious course I steer,
Alone, unguided, and unknown."

—*The Pilgrim.*

[1] Peabody's Life of Wilson.

Wilson has almost invariably appeared at a great disadvantage whenever placed in opposition to Audubon, even some of his greatest admirers, without due consideration of all the facts, have taken it for granted that he was altogether at fault, and cravenly hinted at his lowly birth and lack of opportunities in justification! It seems a great pity that those two remarkable men, so unlike in temperament and in everything except their love and devotion to Nature, could not have met in good fellowship on that common ground. To think of there being but two active ornithologists in all the country, each unconscious of the other's existence until a fortuitous meeting should reveal one to the other and start a quarrel of so many decades duration. Of Wilson—the Scotch-American—the very worst that could be said of him is that he was "a poor weaver, suffering from the many blights that had fallen upon his class in a land where the amenities of civilization had not done much to soften the manners of the working classes." [1] "Not accustomed to polished society in his earlier days; and, as he was conscious of possessing powers greatly superior to those of the laborers with whom he associated, his manners, like those of Robert Burns, probably became somewhat impatient and overbearing." [2]

"As a poet he missed greatness by those limitations of passion which seem so sad and unaccountable; as a naturalist, he achieved it by patience that knew no limitations until death interposed." [3]

"Of middle stature, thin, cheek-bones projecting, eyes though hollow, displaying considerable vivacity and intelligence; sallow complexion, a dash of vulgarity in his physiognomy which struck the observer at first view, but which failed to impress one on acquaintance." [4] By turns a poverty-stricken weaver, indorsing his indentures with the following:

[1] Buchanan's Life of Audubon.
[2] Peabody's Life of Wilson.
[3] Coues' Key to North American Birds.
[4] Ord's Life of Wilson.

"Be't kent to a' the world in rhime,
That wi' right mickle wark and toil,
For three long years I've ser't my time,
Whiles feasted wi the hazel oil."

An itinerant peddler when nothing better offered; or to satisfy his longing for travel:

"Hard fate has this ordain't, that I
Maun dauner thro the warl',
The wants o' thousan's to supply,
An' heavy lades to harl;
Sae aft, when E'ening brings the Night,
In lanely desolation,
I seek a corner, out o' sight,
To mourn my condemnation."

—*The Pack.*

And ill-paid schoolmaster, of which he writes:

"Of all professions that this world hath known,—
From humble cobblers upwards to the throne,
From the great architects of Greece and Rome
Down to the maker of a farthing broom,—
The worst for care and undeserving abuse,
The first in real dignity and use
(If kind to teach, and diligent to rule),
Is the learned master of a little school."

—*The Dominie.*

Disappointed in love, a stranger to prosperity though helping others poorer than himself; yet desiring so earnestly that he "might at least leave a small beacon to point out where he perished."

Audubon, on the other hand, was the son of an admiral of France. "Educated with all the advantages wealth could bestow, and his natural taste for painting had been early trained into a rich development under the guidance of the celebrated David." [1]

[1] Brewer's Reminiscences of Audubon.

"Vivid and ardent was his genius; matchless he was with both pen and pencil in giving life and spirit to the beautiful objects he delineated with passionate love. The brilliant French-American naturalist was little of a 'scientist.' Of his work, the magical beauties of form, and color, and movements, are his all; his page is redolent of Nature's fragrance."[1] He was, according to his own description, "five feet, ten inches, erect and with muscles of steel, in temper warm, irascible, and at times violent." Fond of shooting, fishing and riding on horseback, ridiculously fond of dress. "To have seen me going shooting in black satin small-clothes or breeches, with silk stockings, and the finest ruffled shirt Philadelphia could afford, was, as I now realize, an absurd spectacle; but it was one of my many foibles, and I shall not conceal it; I purchased the best horses in the country, and rode well and felt proud of it; my guns and fishing tackle were equally good, always expensive, and richly ornamented, often with silver."[2]

Fond of music, dancing, and drawing, in all of which he was well instructed. Without a care or occupation except that of amusement, until he became united to a woman of the highest devotion, appreciation and refinement; not to have been a little vain and selfish would have been altogether impossible. "He was handsome and he knew it. He was elegant and he prided himself upon it. He was generous in most things, but he did not love his rivals."[3]

To the fastidious Audubon, Wilson's appearance was far from prepossessing. "How well do I remember him, as he walked up to me! His long, rather hooked nose, the keenness of his eyes, and his prominent cheek bones, stamped his countenance with a peculiar character. His dress, too, was of a kind not usually seen in that part of the country,— a short coat, trousers, and a waistcoat of grey cloth."[4]

[1] Coues' Key to North American Birds.
[2] Audubon's Journals.
[3] Buchanan's Life of Audubon.
[4] Audubon's Ornithological Biography.

Wilson opened his books, explained the nature of his occupation, and requested Audubon's patronage. "With hopes humble enough, asking only support equal to his merits, and the laudability of his intentions, expecting no more; and not altogether certain of that."[1] Here were the first two volumes of a work which the great Cuvier afterward pronounced "equal in elegance to the most beautiful works of ornithology published in the old world." Drawn by one "to whom the art of bird painting had been acquired with fingers stiffened by toil and manual labor,"[2] and "perhaps no other work on ornithology of equal extent is equally free from error, and its truthfulness is illuminated by a spark of the fire divine. This means immotality."[3] Audubon continues: "I felt surprised and gratified at the sight of his volumes, turned over a few of the plates, and had already taken a pen to write my name in his favor, when my partner, rather abruptly, said to me in French, 'My dear Audubon, what induces you to subscribe to this work? Your drawings are certainly far better, and again, you must know as much of the habits of American birds as this gentleman.' Whether Mr. Wilson understood French or not, or if the suddeness with which I paused disappointed him, I cannot tell; but I clearly perceived he was not pleased. Vanity and the encomiums of my friend prevented me from subscribing." Audubon's frankness has ever been his most winning weapon, yet after cheerfully shifting part of the blame to the vanity of youth and the remainder to his hard-headed friend Rosier, he destroys the whole effect in the following words: "* * * but, dear reader, I did not subscribe to his work, for, even at that time, my collection was greater than his." Eleven years later he vainly endeavored to obtain sight of this work in New Orleans, and the cruel irony of fortune, still later while in Europe he wrote in his journal: "How often I thought during these visits, of Alexander Wilson, when traveling as I am now, to procure subscribers, he, as well as myself, was received with rude coldness and

[1] Wilson's Introduction, American Ornithology.
[2] Brewer's Reminiscences of Audubon.
[3] Coues' Key.

sometimes with that arrogance which belongs to *parvenus*." To the poor Scotch naturalist, Audubon doubtless not only appeared the accomplished sportsman-artist, but a wealthy gentleman of leisure as well, yet so little interested in natural science or the portraits of birds not of his own painting, that he had not taken the trouble to look over more than a few of the plates! That this was characteristic of the gentleman there is little doubt and that he was not at heart a scientist is probably true. "It is singular how two minds possessing the same taste can be so diversified as to differ in *toto* respecting the same subject. During the whole time of Mr. Audubon's residence in Paris, he only visited the ornithological gallery twice(while I was studying for hours almost daily) for the purpose of calling on me; and even then he bestowed that sort of passing glance at the magnificent cases of birds which a careless observer would do while sauntering into the rooms."[1] Wilson, however, took a keen interest in the contents of Audubon's portfolio, being all enthusiasm, and recognized two species as new to him; but the week's canvass in Louisville produced not a single subscriber! No wonder poor Wilson, out of the bitterness of his heart, wrote in his diary: "Science or literature has not one friend in this place," and felt much the same as Audubon did many years later when lack of appreciation seemed about to balk him in his great undertaking. Audubon's apparent, though perhaps unconscious antagonism to Wilson, is fully illustrated in the following extract from his Ornithological Biography under the head of Whooping Crane: "I had, in 1810, the gratification of taking Alexander Wilson to some ponds within a few miles of Louisville, and of showing him many birds of this species, of which he had not previously seen any other than stuffed specimens. I told him that the white birds were adults, and that the grey ones were the young. Wilson, in his article on the Whooping Crane, has alluded to this, but as on other occasions, has not informed his readers whence this information came." This is indeed a most trivial charge if it were not an unjust one. Audubon being of the most positive

[1] Swainson's Taxidermy.

nature, did not stop to consider that it was possible for Wilson to have found out this fact for himself; and furthermore it will be noted that this is about the only intimation extant of the latter being a closet naturalist. Quoting from Wilson's American Ornithology under the head of the above species: "A few sometimes make their appearance in the marshes of Cape May (New Jersey) in December, particularly on and near Egg Island, where they are known by the name of *Storks*. The younger birds are easily distinguished from the rest by the brownness of their plumage. Some linger in these marshes the whole winter, setting out north about the time the ice breaks up. * * * On the tenth of February (1809) I met with several near the Waccaman river, in South Carolina; I also saw a flock at the ponds near Louisville, Kentucky, on the twentieth of March (1810). * * * The vast marshy flats of Siberia are inhabited by a crane very much resembling the present, with the exception of the bill and legs being red; like those of the present, the year old birds are said to be tawny." Under the date of March "21st" (20th), the following extract from Wilson's diary is brief and to the point: "Went out shooting this afternoon with Mr. A(udubon), saw a number of Sandhill Cranes." According to Ord, Wilson never saw the real Sandhill Crane, so the above must apply to *Grus americanus*, Whooping Crane, although there seems no doubt that his friend Bartram identified two distinct species in Florida which he called *Grus pratensis* and *Grus clamator*. Audubon mixed the adult and young of the two species in almost inextricable confusion at the very time he published his cry of stolen knowledge. It appears from Audubon's Journal that he informed Wilson that he had no intentions of publishing; at his request loaned him a few of his drawings during his stay, hunted in company and procured him specimens of birds he had never before seen; and finally offered him his drawings merely on the condition that what he had drawn or might afterward draw and send to him, should be mentioned in his work as coming from Audubon; to this Wilson made no reply, and soon after left Louisville on his way to New Orleans, "little suspecting how

much his talents were appreciated in that little town." Wilson's version of the Louisville visit is exceedingly brief: "March 17. * * * Took my baggage and groped my way to Louisville—put up at the Indian Queen tavern and gladly sat down to rest. March 18. Rose quite refreshed. Found a number of land speculators here. * * March 19. Rambled about town with my gun. Examined Mr. (Audubon)'s drawings in crayon—very good. Saw two new birds he had, both *Montacilla*. March 20. Sat out this afternoon with gun—killed nothing new. * * * Many shopkeepers board in taverns—also boatmen, land speculators, merchants, etc. *No naturalist to keep me company*. March 21. Went out shooting this afternoon with Mr. A(udubon). Saw a number of Sandhill Cranes. Pigeons numerous. March 23. * * * Having parted with great regret, with my paroquet to the gentlemen of the tavern, I bade adieu to Louisville, to which place I had four letters of recommendation, and was taught to expect so much of everything there; but neither received one act of civility from those to whom I was recommended, one new subscriber nor *one new bird*; though I ransacked the woods repeatedly, and visited all the characters likely to subscribe. *Science or literature has not one friend in this place.*" Audubon takes exception to the above, almost if not quite a score of years after; time enough to have forgotten much incident to an ordinary interview, if, upon reading Ord's extracts from Wilson's diary, published in 1814, pique had not aided in the recalling of the most vivid points in his favor. On the other hand, Wilson, at perhaps the time of his greatest irritation and discouragement, had written while the memory of his disappointment was fresh in his mind. Obviously Audubon was not one of the gentlemen to whom the letters of introduction were addressed, therefore that part of Wilson's words cannot apply to him. Furthermore the original rendition of the opening words of his diary under date of March 23rd make it appear as if the Parcquet was presented or sold to the gentlemen of the tavern, whereas by his own account he carried it from Big Bone Lick, thirty miles above the Kentucky river, upward of a thousand miles,

in his pocket, and it finally flew overboard and perished in the Gulf of Mexico; a better interpretation would read: "Having parted with the gentlemen of the tavern with great regret, I with my paroquet bade adieu to Louisville." In this connection it will be well to remember that Audubon dwelt under the same roof and was of the company referred to. Wilson's statement that he received not one new bird, appears to have been equally true, Audubon's several statements notwithstanding. The Whooping Crane, *Grus americanus,* as already mentioned, had been met with previously in South Carolina and probably on the New Jersey coast; the Solitary Sandpiper, *Helodromas solitarius,* is a regular transient through Southeastern Pennsylvania and doubtless was first met with near home, though he appears to have also met with it in Kentucky; Wilson's Snipe, *Gallinago delicata,* he mentions especially as having found extremely numerous on the borders of the ponds near Louisville, March 20th, as well as abounding in the meadows bordering the Schuylkill and Delaware rivers. Two new species, the Kentucky Warbler, *Geothlypis formosa,* and the Prairie Warbler, *Dendroica discolor,* are the only ones he appears to have accredited to that state, and the early date on which he departed from Louisville would prove that they were not taken until after he had traveled south some distance, meeting the vernal migration. The tender of the work of another, no matter how valuable and artistic, could not be other than embarrassing to Wilson, who was placed under the most extreme difficulties in bringing out his own production; and his apparent unresponsiveness to the doubtful generosity of Audubon, probably partook of abashment rather than the churlishness attributed to him. At that time the great bird-painter could scarcely have unloaded to the most wealthy publisher on earth, and it afterwards cost him $100,000 to bring out his own work.

Note the gentle sarcasm Audubon employs in the faintest echo of that ever-to-be-regretted visit: "Wilson's Plover! I love the name because of the respect I bear to him to whose memory the bird has been dedicated. How pleasing it would have been to me, to have met him on such an excursion, and,

after procuring a few of his own birds, to have listened to him as he would speak of a thousand interesting facts connected with his favorite science and my ever pleasing pursuits. * * * But alas! Wilson was with me only a few times, and then *nothing* worthy of his attention was procured."[1] But again quoting from Audubon, this time under the head of the Small-headed Flycatcher; here is a most serious charge; one which should never have been made unless the author of it was prepared to prove it beyond the shadow of a doubt: "When Alexander Wilson visited me at Louisville, he found in my already large collection of drawings, a figure of the present species, which being at that time unknown to him, he copied and afterward published in his great work, but without acknowledging the privilege that had thus been granted him. I have more than once regretted this, not by any means so much on my own account, as for the sake of one to whom we are deeply indebted for his elucidations of our ornithology."

While at Nashville, about the last of April, Wilson sent a letter and three sheets of drawings to his engraver's address, which Mr. Lawson never received; and if a copy of Audubon's drawing of the Small-headed Flycatcher was included, it was of course lost with the rest.

At a stated meeting of the American Philosophical Society, September 18th, 1840, George Ord replies to the charge of Wilson's plagiarism of the Small-headed Flycatcher as follows: "The attack upon the reputation of a member of this society, one who, during the long period he dwelt amongst us, was noted for his integrity, ought not to be suffered to pass without examination. Wilson's Small-headed Flycatcher differs in no respect from his ordinary style; that it bears the signet of paternity on its very front. But, as it might be objected that this mode of reasoning is, in conclusion, from the circumstances of several of Mr. Audubon's birds bearing a resemblance to those of Wilson, Mr. Ord obviated this objection, by stating that Mr. Audubon had not scrupled to appropriate the labors of Wilson to his own use;

[1] Ornithological Biographies.

inasmuch as the figures of the female Marsh Blackbird (*Birds of America*, plate 67) and that of the male Mississippi Kite (same work, plate 117) have both been copied from the *American Ornithology*, without the least acknowledgment of the source whence they had been derived. Mr. Ord thought that the charge of plagiarism came with ill grace from one who had been guilty of it himself, as in the instance above named. Wilson states that he shot the bird figured and described in his 6th volume, page 62, in an orchard, on the 24th of April. Mr. Ord confirms this statement, by declaring to this society that he himself was with Wilson on the day in question; that he saw and examined the specimen; and that Wilson assured him it was entirely new to him. Wilson was then residing at the Bartram Botanic Garden near Philadelphia. Mr. Ord further read to the society a letter addressed to him by the artist, Mr. Lawson, who engraved the plate in which the Small-headed Flycatcher is figured. This gentleman affirms, that all the plates, which he engraved for the American Ornithology, were from Wilson's own drawings, and that in respect to the plate in which the Small-headed Flycatcher appeared, *specimens* of all the birds represented accompanied the drawings; and he, after getting his outlines, worked from them. Mr. Ord laid before the society a proof of the etching of this plate, and remarked, that from the minuteness of the details, the point of the engraver had a greater share in producing the desired result, than even the pencil of the ornithologist."[1] It will be recalled that Ord frequently accompanied Wilson on his later local collecting trips. It was on one of those jaunts he secured the first and only example of the Cape May Warbler, *Dendroica tigrina*, Wilson ever saw.

Audubon complained, several years previous to this, that Ord assailed him with bitter enmity. His son Victor G. and other friends loyally replied to Charles Waterton's shallow criticisms and broad display of ignorance,[2] and Dr. John

[1] Proceedings American Philosophical Society, Vol. I, 1840.

[2] London's Magazine of Natural History, Vol. VI, 1833, pp. 215-218. 369-372; Vol. VII, 1834, pp. 66-74. Journal Boston Society of Natural History, Vol. I, 1834, pp. 15-31. National Intelligencer, 1834.

Bachman replied in a kindly manner to George Ord, who had questioned some of the statements appearing in the first volume of the Ornithological Biography,[1] and this is alluded to by his devoted granddaughter,[2] who can discover no evidence of vanity or selfishness in her illustrious ancestor; yet the subject matter under controversy became altogether trivial in comparison to this later charge, which received no notice whatever. Ord's companionship would have counted for little indeed if he had not defended his departed friend from imputation so vile. His defense of Wilson lacked neither dignity nor evidence. Audubon's accusation had been published in the body of a work which the author must have foreseen would have a world-wide circulation and be consulted for many generations. It has been copied in every one of the later editions of his works, and reiterated in almost every one of his biographies, even to the present century. Doubtless a thousand have read and accepted his estimate of Wilson, to one who has as much as seen Ord's defense and counter-charge. Moreover, Ord's attack was not at all cowardly, his adversary was not beneath the sod, but quite capable of being heard had he not chosen to silently pose as unjustly persecuted.

In reference to the Mississippi Kite, Stone has written the following: "It must be admitted that a tracing of Wilson's bird fits exactly over Audubon's figure, but the copyist left out one of the bird's toes. The charge resolves itself solely into a question of veracity between Audubon and Ord; there is no resemblance whatever between the two figures of the Small-headed Flycatcher, while Audubon's statement about Wilson's acceptance of his offer to let him copy some of his drawings are contradictory."[3]

Audubon states that Wilson approached him while at his table, drawing. "Some time elapsed, during which I never heard of him, or of his work. At length, having occasion to

[1] Bucks County (Pennsylvania) Intelligencer, June 10, July 1 and 15, 1835.

[2] Audubon and His Journals, 1897, p. 56.

[3] Auk, Vol. XXIII, 1896, p. 312.

go to Philadelphia, I immediately after my arrival there, inquired for him and paid him a visit. He was then drawing a White-headed Eagle. He received me with civility, and took me to the exhibition rooms of Rembrant Peale, the artist, who had there portrayed Napoleon crossing the Alps. Mr. Wilson spoke not of birds nor drawings. Feeling, as I was forced to do, that my company was not agreeable, I parted from him; and after that never saw him again."[1] At this time the splendid genius of the Painter-Ornithologist was unknown to the world, but his views had broadened. He no longer wished to monopolize all admiration, but had become interested in the work of others. He found that the humble petitioner had surmounted all difficulties encountered and was now reaping the first fruits of his industry.

His final success seemed assured. In Mr. Audubon he recognized the gentleman companion and guide of one or two little tramps about Louisville, a service any loiterer about the settlement might have performed acceptably. In acting as his guide to the Peale art gallery, Wilson thought to return his kindness, and no doubt anticipated the pleasure he was giving an accomplished artist and patriotic Frenchman. That Audubon would expect more was inconceivable! He had taken little interest in his drawings previously, and Audubon would be under the necessity of reopening the subject or leave it untouched.

We may sometimes distrust the evidence of a too positive man. Audubon could hardly be absolutely certain that Wilson used his drawing unless he was conscious of the fictitiousness of the subject himself, and the consequent utter impossibility of duplicating it by any means whatever; in this event he would himself be guilty of creating and perpetuating a gross fraud—a condition so utterly improbable as to pass as almost beyond a possibility, though, indeed, not absolutely so, if hearsay evidence may be credited. Anyone familiar with the journals of Audubon will recall his description of that "odd fish" the eccentric Rafinesque (Schmaltz). The following came from Dr. Kirk-

[1] Ornithological Biography.

land, who in turn received it from Dr. Bachman: "Audubon showed him gravely some ten grotesque drawings of impossible fishes which he had observed 'down the river,' with notes on their habits, and a list of the names by which they were known by the French and English settlers. These, Rafinesque duly copied into his notebooks and later he published descriptions of them as representatives of new genera, such as *Pagostoma, Apteecentrus, Litholepis, Pilodictis, Pomacampes*, and the like. I am informed by Dr. J. A. Allen that there are also some unidentified genera of Herons, similarly described by Rafinesque from drawings kindly shown him by Mr. Audubon. Apparently these also date from the same unlucky practical joke."[1]

Audubon's description of the Small-headed Warbler, according to his own confession, appears to have been taken thirty-two years after the drawing was made! "In those happy days, I thought not of the minute difference by which one species may be distinguished from another in words or the necessity of comparing tarsi, toes, claws and quills." It would seem, too, that he must have been somewhat at fault as to either the locality or the date of capture, unless it was made on a visit immediately preceding his permanent removal from Mill Grove, an event extremely improbable, since there is so much to urge against it in the absence of exact information as to the dates of his earlier trips. He has told us that he was married at Fatland Ford (near Philadelphia), April 8th, 1808, and left on the day following for Louisville, Kentucky. The overland trip to Pittsburgh, on which Mrs. Audubon met with a painful accident incident to the upsetting of the coach on the mountains, must have required a week at least. There was the usual delay incident to the loading of a flatboat with their many goods, and its passage down the Ohio almost wholly dependent on the current which Wilson gave at two and a half miles an hour, so that it was quite probably already late in April when the mouth of the Big Sandy was reached, beyond which lies the nearest Kentucky soil, with Louisville several hundred miles further

[1] Youman's Life of Rafinesque.

down the great Ohio. Wilson was twenty-two days enroute from Pittsburgh and while he made frequent side trips, he more than doubled the speed of a house boat, in his small skiff.

Audubon was on his wedding trip and the exact date of the capture of this bird did not greatly concern him. Coues says: "He was often careless and unreliable in his statements of fact, which often led him to being accused of falsehood."[1]

Audubon writes of "Alexander Wilson the naturalist—not the American naturalist." There is an undeniable tinge of jealousy in more than one passage in his journals. Upon what ground Burroughs judged that Wilson looked upon Audubon as his rival, while at the same time admitting that "in accuracy of observation, Wilson is fully his equal, if not his superior," is problematical. It seems absurd in view of the assurance Audubon had given Wilson that he did not intend to publish. And why should he accept one in preference to the other's statement, while questioning the former's veracity in one of his tales of adventure, which "sounds a good deal like an episode in a dime novel, and may be taken with a grain of allowance.[2] If Audubon acted inconsiderately toward the humbler, less assertive Wilson, he ignored the unbending Ord, considered the devoted Lawson garrulous, intimated that the scholarly Bonaparte was exceedingly ignorant in regard to our birds, considered himself badly used by the Philadelphia Academy of Natural Sciences, although he had been given access to its latest acquisitions, thereby misquoting and smothering the gentle, capable Townsend, who had made the shipments of the bird skins from the west; and even proposed purchasing Swainson's talent as he would a portrait, transferring his work to his own.[3] Truly, with the silent, subsidized partnership of the learned MacGillivray, it would seem that a monopoly of American ornithology was no idle dream in those days.

[1] Fourth Installment of Ornithological Biblography, Proc. U. S. Nat. Mus., Vol. II, p. 396.

[2] Burroughs' John James Audubon.

[3] Gill's William Swainson and His Times. V. Osprey, Vol. IV, p. 171.

Almost a hundred years have passed since that memorable misunderstanding on the banks of the Ohio. This mass of evidence and opinions has been collated with neither animosity nor partisan feeling. A century is entirely too long a period in which to foster a quarrel. In this age of Audubonian worship, an idol need not be shattered in the emphasizing of this man's petty vanity, petulancy and inconsistency; and if in a single encounter, the son of the bourgeois measured up the better, truer man, judged truly according to the evidence; justice does not require perfection from him and indeed faultlessness will not be found; but a juster, more rational estimate of the men and their works should follow a close study of their lives.

Time and success softens the harshest judgment and when Audubon revisited the scenes of his youth, he could well afford to be at peace with all men, for he was in full flush of hard-earned fame and prosperity. He entered in his journal under the date of October 15th, 1836: "Passed poor Alexander Wilson's schoolhouse, and heaved a sigh. Alas, poor Wilson! would that I could once more speak to thee, and listen to thy voice. When I was a youth, the woods stood unmolested here, looking wild and fresh as if just from the Creator's hands; but now hundreds of streets cross them, and thousands of houses and millions of diverse improvements occupy their places. Bartram's Garden is the only place which is unchanged. I walked in the same silent wood I enjoyed on the same spot when first I visited the present owner of it, the descendant of (?) William Bartram, the generous friend of Wilson."[1] But alas! The kindly words were not written until he whom Audubon could never call friend had long since departed; yet how our hearts warm toward the great bird delineator for that one sigh in tribute to the memory of the immortal Wilson.

[1] Life of Audubon by his widow.

JUNE WITH THE BIRDS OF THE WASHINGTON COAST.

THE WHITE-CRESTED CORMORANTS.

BY LYNDS JONES.

The proper study of the White-crested Cormorants (*Phalacrocorax dilophus cincinatus*) was made during our stay upon Carroll Islet, but lest the mere narrative of the trip become tiresome I make bold to interpolate the following notes into the narrative while my audience is storm-bound with me at La Push, in the midst of the down-coast journey.

The reader has already seen enough pictures of the rocks and islands characteristic of this coast to become familiar with the precipitous sides, jagged outlines, verdure-clad top, and crumbling ledges. The accompanying half-tone pictures will give some idea as to what parts of Carroll Islet these Cormorants select as nesting sites, and illustrate certain details which the camera was able to record. These pictures represent two somewhat different kinds of nesting places, and fairly represent the life of these birds during the breeding season.

Figure 2 is a representation of nearly the entire colony which occupied a sharp ledge jutting out from the northeast corner of the island, a ledge with a sharp and jagged summit ridge, as the picture shows. This was the only colony of this species found in such a situation. Figure 1 represents a part of one of the other and apparently more usual nesting site of this species—a rather narrow ledge of broken shelving rock at the foot of a precipice or over-hang. Apparently any relatively flat space sufficiently large to accommodate the nest may be utilized, either upon the sharp ledge or precipice's foot. A careful scrutiny of any of the nests shown will reveal the fact that one of the prime requisites in a nesting site for the individual nest is that on one side the ground or rock must fall abruptly away. It is on this side that the excrement forms a limy smear, often extending many feet below the nest. The uphill side of the nest is always relatively clean.

Nests are made of coarse sticks arranged much after the manner of a hawk's nest, cupped to the depth of five or six inches, and with a lining of grassy material which covers scarcely more than the bottom of the depression. The sticks

Fig. 1. Jones, 1907.

White-crested Cormorant (*Phalacrocorax dilophus cincinnatus*). A ledge colony at the foot of a precipice.

used were such as might have been found upon the island, and the grass seemed to correspond to that within a short dis-

tance of the colony. There was no evident attempt at concealment in any case, nor was there any clear indication that any nests were placed with a view to shelter either from the weather or from the scorching rays of the sun. The evident distress of both old and young birds when exposed to the direct sunlight would certainly afford excuse enough for seeking a shady nook among the rocks. The very young birds were nearly baked when left uncovered for any great length of time. One such died under our eyes, evidently from the heat.

The many attitudes of the birds in the colony and upon their nests are well shown in the outline of the colony. Those standing erect are protesting the invasion of their ancient domain by the camera-man. The one beneath which the eggs show has merely raised up from the position which the completely sitting bird in front maintains. The sitting bird is in the incubating posture. In contrast to this note the attitudes of the old birds upon the nests containing young which are old enough to hold their heads up for food, as in figure 4. The attitude here shown is the one just preceding or following feeding. The birds stand at attention and are ready to fly at a moment's notice without creating any disturbance in the nest. The old bird in figure 3 "stood" to the camera beautifully, permitting an approach within three feet, focussing cloth and all, and did not so much as start at the snap of the shutter. The youngster beside her was later fool enough to try his featherless wings and got bumped for his pains.

Figure 5 is a nest-full—four young of somewhat different ages, but all belonging to the same brood. The black downy covering, the orange-yellow throat pouch, and the open mouth of the youngster at the left of the picture are all characteristic. These birds pant like a dog when they are hot, as these birds were, the throat pouch throbbing and expanding with every inhalation. It appeared that the panting was the result of an attempt to cool the blood. The utter helplessness of the very young is well shown in figure 6. The bird hanging over the edge of the nest is not more than a day old. The remaining egg hatched on the day following the photograph. The nest shown in figure 7 was partly sheltered by an overhanging

rock. The three eggs were fresh, one of them being a decided runt.

The varying ages of the young—none of which were yet feathered—and the fresh eggs in a nest which showed no signs of having been a victim of the pilfering Crows, both point to

Fig. 2. White-crested Cormorant (*Phalacrocorax dilophus cincinatus*). A ledge-crest colony. Jones, 1907.

the conclusion that there must be a great deal of individual variation in the time of nesting of these birds. It is true that nests containing fresh eggs may represent a second set after the loss of the first one, but the fact that none of the young

birds were anywhere near ready to leave the nests seems conclusive that only one brood is reared in a season. The nesting season was too far advanced to afford any opportunity for studying nest building or egg deposition.

The eggs are of the usual cormorant type—a greenish shell color heavily overlaid with lime so that the shell color rarely shows. Nests containing both eggs and young were often so filthy that nothing in them could long remain white. Young birds had the habit of throwing out the recently acquired meal of regurgitated fish, and they were as indifferent to the place where it fell as any other victim of *mal de mer*. The vicinity of such nests we avoided. The young birds did not simply throw out the pellet of fish, but after getting it up as far as the pouch they turned their heads violently from side to side until the offending pellet had been thrown out, no matter whom it might hit.

The colony shown in figure 1 was shared by a few California Murres who occupied the spaces between nests which were level enough to keep an egg from rolling into the water, or off from the ledge. There was no apparent discord in such a mixed colony, even though the Murres were within reach of the weapons of the Cormorants. In one other place the same conditions prevailed. I could discover no reason for regarding this as a case of true commensalism. If there was any benefit derived from this association it must have been to the advantage of the Murres.

Besides these two nesting sites there were a few small ledges on the ocean side of the island where we found nests of this species, usually not more than two or three nests together. Here there was some distant intimacy with Baird's Cormorants, but the different manner of nesting of these two species precludes the possibility of any competition between them.

The perpetual noises made by the birds of the island seriously interfered with any careful study of the various notes of these Cormorants. When the old birds were disturbed or alarmed they gave vent to a spluttering squawk and often a low grunting. The young yelped something like a puppy, particularly when they were calling for food. They were

usually silent when crouching away from danger. The very young birds showed no fear, but the older ones clearly did.

One can readily distinguish between this species and Baird's Cormorant by the presence of the two white patches

Fig. 3. Jones, 1907.

White-crested Cormorant (*Phalacrocorax dilophus cincinnatus*). A two-nest colony. Carroll Islet, Wash.

each side of the base of the tail in Baird's and no such markings in the White-crested. Baird's is also noticeably smaller. Brandt's Cormorant was the only other member of this group

about the island, and it could be distinguished by its blue gular pouch and the whitish pencilings about the neck.

In three sets of three eggs each there is considerable variation in the shapes of the eggs, but the average dimensions are nearly 60 by 40 millimeters. The largest egg noted was 63

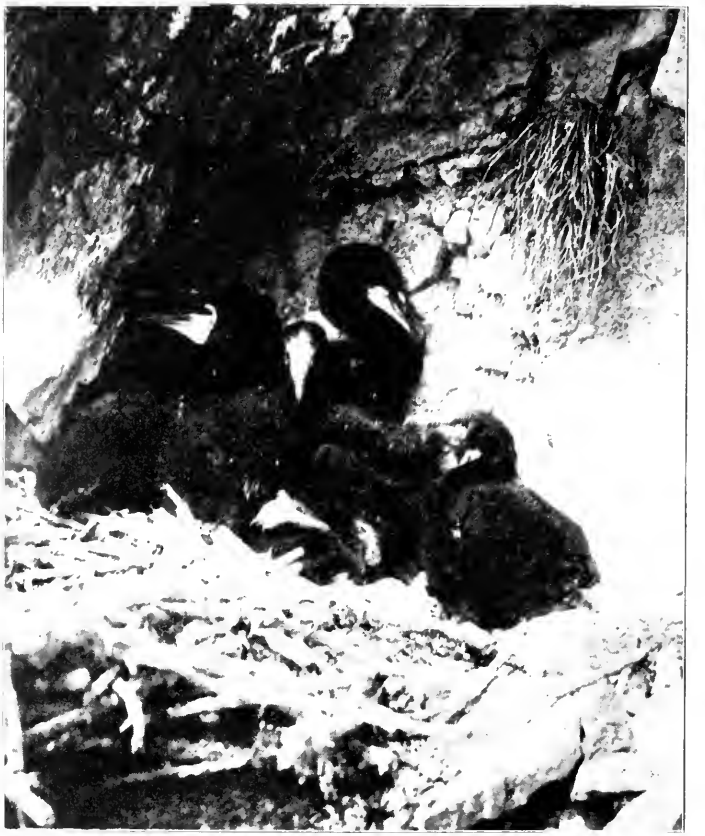
Fig. 4. Jones, 1907.

White-crested Cormorant (*Phalacrocorax dilophus cincinnatus*). Old and young.

by 41, and the smallest, except the runt, was 52.2 by 39.5. The runt measured 41 by 28.5. The eggs are about equal ended, with plumper outlines and blunter and more rounded ends than the typical cormorant egg. Careful scrutiny reveals the

fact that there is a large and a small end. I could not be certain that there was any prevailing arrangement of the eggs in the nest. The evidence seemed to indicate that the actual as

Fig. 5. Jones, 1907.



A nest-full of young White-crested Cormorants. Carroll Islet, Washington.

well as the relative position of the eggs was changed each day, even if only slightly.

THE SPRING MIGRATION OF 1907 IN THE VICINITY OF CHICAGO.

BY JOHN F. FERRY.

The weather *prevailing during March, April, and May of 1907, was so abnormal in character that the study of bird-migration during these months was one of absorbing interest to the ornithologist. March, 1907, was a very unusual month, it being the warmest on record for this vicinity, with one exception. Its mean temperature was 43°, which made it actually average 3 degrees warmer than the following April. The average daily temperature was 7.6 degrees warmer than the normal temperature for this month. The month was humid, cloudy and inclement, there being nine days when there was hail, sleet, fog, or thunderstorms and during the month there were but three days of continuous sunshine. Notwithstanding these unfavorable elements bird-life was abnormally abundant from the 16th day on, from which day almost continuous warm weather prevailed. This indicates that temperature is a very important factor in influencing migration.

April was quite the opposite of March, it being the coldest April on record with one exception. The mean temperature of the month was 40° as compared to a normal temperature of 46°. The average daily temperature was 6½ degrees cooler than the normal. There were but seven clear days during the month. May was peculiar, it being the coolest May on record (one exception). Its average temperature was 52°, while the normal temperature for May is 56°.

The corresponding influence of these peculiar weather conditions upon bird-migration was quite noticeable. The first half of March was cool, the temperature averging 35° up to the 16th, when the first movement of the year really began. During the remainder of the month the temperature averaged 50°, and beginning with the large movement on the 16th bird

* Professor Henry J. Cox, of the local U. S. Weather Bureau, has been extremely kind in furnishing me with full reports on the weather. The records of the Chicago station extend over 37 years.

life was abundant during this period. A daily average of 17 species was observed. Then followed the cold spell of April, continuing till the 20th, with an average temperature of 37°. During this period there was practically no migration, and what became of bird-life, previously so abundant, is an interesting subject for speculation. During this period an average of 11 species of birds per day was observed. On the 21st the temperature rose to 45°, continuing near that figure for the remainder of the month. Again bird life became abundant, an average of 18 species per day being observed. As previously stated May was a cold month and only seven new migrants arrived till the 8th, when ten firsts were observed. This period was one of typical April weather with a temperature of 47°, several frosts and a thunderstorm. The birds coming at this time made their way against light north and northeast breezes which blew most of the time.

On May 12th occurred the great movement of the migration. On this date 21 "firsts" were observed. The wind blew from the south and attained its highest velocity for the month —40 miles per hour. Its average velocity was 27 miles. The weather was clear with a temperature of 58°. The movement continued with little abatement during the 13th, the temperature rising to 71°—the warmest day of the month—and the wind continued at 27 miles, shifting to the southwest. On this date 14 "firsts" came. The warm spell inaugurated on the 12th continued till the 19th, excepting the 15th, which was cold, with an average temperature of 60°, and bird life was extremely abundant, especially warblers. On the 20th occurred a drop in temperature to 44°, and unseasonably cold weather continued the rest of the month. The effect of this change was very noticeable. The migrants showed very little disposition to progress, but seemed to have broken ranks and were feeding leisurely in the tree-tops. The extreme backwardness of the season was shown in the retardation of the foliage which in turn limited the abundance of insect life. During several cold spells, notably on the 15th, the struggle for life seemed extremely severe. The warblers

gave up their search in the well-nigh leafless trees and descended to the ground. Here on the edges of muddy roads or ditches or wherever the bare earth was exposed, they hopped, puffed out and numb with cold eking out their

Fig. 6. Jones, 1907.

White-crested Cormorant (*Phalacrocorax dilophus cincinnatus*). Carroll Islet.

scanty fare from small worms and larvæ. At this time only the earlier trees had begun to leaf out—willows, poplars,

and birches. A general view of the forest showed it almost entirely bare.

During May 30 and 31, and June 1 and 2 steady cold north or northeast winds prevailed and during the two latter days with such force that only on the southern edges of woodland could warblers be found. At this time the trees were quite generally leaved out, furnishing an abundance of insect life. Thus confronted by favorable present conditions and those adverse for migrating the birds were disposed to linger. A feeling of contentment seemed to reign among them. They became extremely fat in marked contrast to their previous half-starved condition and the tree-tops resounded with their songs. The cold weather continued till the 9th of June and the migrants remained in considerable abundance during most of that time. However, a noticeable thinning out of their numbers occurred gradually till the 9th was reached, upon which date they vanished completely. In summing up it can be said that the warblers became common from the date of their main arrival, May 12th, and continued here in abundance till June 2nd and were even fairly common till their departure on the 9th of June. This period of long duration is a singular fact in itself, but it is even more remarkable when the abundance of the migrants during their entire stay is considered. If the count is made from the time when the first stragglers arrived, May 8th, their continuance here embraced more than a month,—33 days.

The extreme lateness of the season is clearly shown by the following migration table and in lesser degree by the table showing a comparison between the condition of certain flowers, trees and shrubs for this year and for the spring of 1906:

TABLE SHOWING CONDITION OF PLANT LIFE FOR THE SPRINGS OF 1906 AND 1907.

	1906	1907
Forsythia	Apr. 22—In flower	Apr. 22—In flower
Lilac (*Syringa vulgaris*)	Apr. 30—Leaves 1½ in.	Apr. 30—Leaves ⅞ in.
	May 9—Flowers in full bloom	May 25—In full bloom
Red Trillium	May 6—In flower	May 12—In flower
May Apple	May 3—Plants 1 ft.	May 7—Plants 2-3 in. high
Butter-cups	Apr. 25—In flower.	May 7—In flower
Anemones	Apr. 25—In bloom	May 7—In flower
Ash	Apr. 28—Leaves 1½ in.	May 2—Leaves ¾ in.
Cherry	May 4—In flower	May 21—In full flower
Willow	Apr. 30—Leaves ⅞ in.	Apr. 29—Leaves ½ in.
Dog-tooth Violets	May 3—In flower	May 7—In flower
Bumble Bee	May 3—	May 12—
Dragon Fly	May 3—	May 12—
Acer negundo	May 4—Leaves 1½ in.	May 12—Leaves 1½ in.
Trillium grandiflorum	May 6—In flower	
Crab-apple (*Pyrus coronaria L.*)	May 20—In full blossom	May 12—In flower June 6—In full flower
Elm	May 9—Leaves ½ in.	June 9—Leaves 1-3 out
Hawthorne	May 26—In full bloom	June 1—In bloom

The following calendar gives in outline the progress of the migration for the spring of 1907 with occasional notes on vegetation, etc. The weather conditions were given for each date in the hope that the influence of weather upon migration could be thus shown. That this hope has not been realized is quite evident, for the records clearly show that birds migrate in all kinds of weather, paying little attention to velocity or direction of wind or of temperature. To this statement one marked exception is shown in that really great migration movements usually take place during a high southwest wind. For proof of this fact note the meteorological conditions when the large migration waves occurred this spring, March 16, March 28, May 12-17, May 22, May 25, May 28.

MARCH.

Day	Wind-direction	Wind-velocity	Temperature	Character of day	
15	SW	16	50	partly cloudy	First active migration of year begins. First seen: Junco, Red-shouldered Hawk, Kingfisher, Red-headed Woodpecker, Fox Sparrow, Red-winged Blackbird, Meadowlark.
16	SW	27		clear	Heavy migration. Frost all out of ground. First seen: Red-tailed Hawk, Sparrow Hawk, Marsh Hawk, Sharp-shinned Hawk, Phœbe, Rusty Blackbird, Cowbird, Bronzed Grackle, Migrant Shrike, Towhee.
17	NE	16	42	partly cloudy	Bird-life abundant. Des Plaines River free from ice. Few Robins and Bluebirds. First seen: Am. Coot, Song Sparrow.
18	NE	15	40	cloudy	Ponds mostly free from ice. Following common: Bald-pate Herring Gull, Canada Geese, Mallards, Lesser Scaup, Red-winged Blackbird, Fox Sparrow, Junco, Song Sparrow (*Anas obscura T. C.*). First Ring-necked Duck.
19	NW	16	50		First Sapsuckers.
20	NE	14	40	partly cloudy	Herring Gulls abundant. Lesser Scaup c. First Lapland Longspurs and Vesper Sparrows.
21	SW	16	58	partly cloudy	First Ruby-crowned Kinglets, Hermit Thrushes, and Vesper Sparrows.
22	NE	15	60	cloudy	Very warm and summer-like. Max. temp. 80. Bird-life abundant. First Winter Wren, Red-breasted Nuthatches and Field Sparrows.
23	SW	20	64	partly cloudy	Very warm and summer-like. At 6 p. m. a thunder and lightning storm.
24	NE	12	42	cloudy	Hawks extremely numerous. Lesser Scaups c. First Blue-winged Teal.
25	S	17	53	cloudy	Lapland Longspurs flying north. Lesser Scaups c. A wave of migrants to-day.
26	SW	16	58	cloudy	First Florida Gallinule.
27	SW	15	60	cloudy	Leaves turning green at Jackson Park. First hepaticas.
28	NE	15	48	cloudy	Prairie Chickens booming at Glen Ellyn (B. T. Gault), Loons (*G. imber*) c. First Pied-billed Grebe. Last Am. Merganser seen.
29	W	26	54	cloudy	Many angle-worms crawling on ground at Jackson Park. First Wilson's Snipe, Am. Bittern, Great Blue Heron.

Day	Wind-direction	Wind-velocity.	Temperature	Character of day	MARCH (Continued).
30	NW	15	46	clear	Temperature suddenly fell to 28, making beginning of cold spell, lasting till April 20. First Purple Finch.
					APRIL.
1		9	32	partly cloudy	Thin ice on rivers and ponds. Frogs croaking. Marsh Hawks c, Grasshopper (*Schistoces americana*). Lesser Scaups ab. First Least Bittern, Herring Gulls, c. Practically no migration from April 1-20.
5		26	34	cloudy	Flicker nesting. Mallards c.
6	E	22	36	clear	Woodcock's nest. First Red-breasted Merganser.
7	SE	21	39	cloudy	Rains all day. First Bonaparte Gull.
11	SW	13	38	cloudy	Ash-flowers out. Young leaves of cherry and goose-berry nipped by cold of past few days. Four Robins' nests. Red-breasted Mergansers, common. Continue so till May 3. More Bonaparte Gulls. A warm rain.
12	NW	24	36	cloudy	Snow-storm, 1⅛ in. of snow. First Horned Grebes. Last Mallards.
14	NW	28	28	clear	Cold—ice ¾ in. Second Hermit Thrushes.
15	S	20	36	cloudy	Pied-billed Grebes common.
16	NW	24	38	partly cloudy	Red-breasted Mergansers flying restlessly about in the high N. W. wind. First Virginia Rail, Sora Rail, and Shoveller.
17	E	11	36	cloudy	Bonaparte Gulls T. C. First Yellow-legs, and Purple Martins.
18	E	12	36	cloudy	First Savannah Sparrow and Am. Bittern.
19	NE	8	37	clear	Prairie Chickens booming at Glen Ellyn (B. T. G.). First Pine Warbler.
20	NE	13	38	clear	Many Red-breasted Mergansers disappear during warm weather of 20-22. First Black-crowned Night-Heron. Dandelions out.
21	SW	17	45	clear	A beautiful day. Hawthorne and goose-berry leafing out. Violet plants 1 in. high. Red trilliums 2 in. high. Spring beauties abundant. Hepaticas out. Ruby-crowned Kinglets in full song. Trees and shrubbery still bare. Tree Swallows and Bank Swallows. Crow sitting.
22	SW	16	54	clear	*Forsythia* in full bloom. First White-throated Sparrow.

Day	Wind-direction	Wind-velocity.	Temperature	Character of day	APRIL (Continued).
23	N	12	50	partly cloudy	First Spotted Sandpiper, Palm Warbler and Blue-gray Gnatcatcher.
24	SW	18	54	partly cloudy	Bronzed Grackles nesting. First common Tern and House Wren.
26	NE	15	35	clear	Small red butterfly and Dragon-fly. First Hooded Merganser.
27	E	12	44	partly cloudy	Horned Grebes common. First Long-billed Marsh Wren and Black and White Warbler.
28	NE	8	49	cloudy	Catalpa leaves 1½ in. long. First Grinnell's Water-Thrush. First Green Heron, Solitary Sandpiper, Henslow's Sparrow, Lark Sparrow, Barn Swallow, Rough-winged Swallow, and Black-throated Green Warbler.
30	NE	21	36	partly cloudy	Willow leaves about 1½ in. long. A great influx of Towhees and White-throated Sparrows.
					MAY.
2	NE	6	40	partly cloudy	Last Bonaparte Gull. Blue-winged Teal common.
3	N	20	42	cloudy	Last Red-breasted Merganser seen. Common Terns c.
4	SE	11	38	partly cloudy	200 Lesser Scaups. First Parula Warbler, Cape May Warbler, and Black Tern.
5	S	12	45	cloudy	First Bobolink and Grasshopper Sparrow.
6	NE	10	45	partly cloudy	First Wood Thrush and Willow Thrush.
7	NE	12	44	clear	Hawthorne leaves ¾ in.; Ash flowers 1 in.; cherry leaves 1 in. long; May apples 2-3 in. high; white trilliums in bud. Dog-tooth violets, anemones, butter cups. First Kingbird. Numbers of migrants arrive. First Yellow Warblers.
8	NE	11	46	clear	Traill's Flycatcher, Least Flycatcher, White-crowned Sparrow, Black-throated Blue Warbler, Prairie Warbler, Redstart, Oven-bird, Catbird. Blue-winged Teal and Lesser Scaups common at Fox Lake. Also an eagle (species?). Trees are still bare of leaves. Black Terns abundant at Fox Lake.
9	N	12	58	clear	More migrants arrive. First Chimney Swifts, Crested Flycatcher, Olive-backed Thrush. Green-crested Flycatcher, Chipping-Sparrow, Rose-breasted Grosbeak, Cliff Swallow.

MAY (Continued).

Day	Wind-direction	Wind-velocity	Temperature	Character of day	
12	S	27	58	clear	Great host of migrants arrive to-day. Foliage of trees has made marked advance, earlier varieties being quite solidly green. Bumble-bees, dragonflies, red butterflies. Two flocks Pine Siskins seen (6, 9). Red-breasted Nuthatches very common. Olive-backed Thrushes, Least Bitterns, Black-crowned Night Herons common. First seen: King Rail, Whip-poor-will, Nighthawk, Wood Pewee, Orchard Oriole, Dickcissel, Scarlet Tanager, Blue-headed Vireo, Prothonotary, Wilson's Magnolia, Chestnut-sided, Wilson's Canadian Warbler and Northern Yellow-throat, Gray-cheeked Thrush, Yellow-billed and Black-billed Cuckoos. Many migrants in song. Cooper's Hawk's nest with 4 eggs.
13	SW	27	71	clear	First seen: Ruby-throated Hummingbird, Olive-sided Flycatcher, Yellow-bellied Flycatcher, Lincoln's Sparrow, Golden-winged, Nashville, Connecticut, Mourning, Bay-breasted Black-poll and Blackburnian Warblers, Yellow-breasted Chat, Indigo Bunting, Red-eyed Vireo, Warbling Vireo, Yellow-throated Vireo, White-eyed Vireo. Brown Thrasher and Phœbe nesting. Bird-life abundant.
14	SW	17	70	cloudy	First Tennessee and Cerulean Warblers. Bird-life abundant.
15	SW	21	52	cloudy	A cold and raw day. Warblers abundant and sorely pressed for food, feeding on ground.
16	SW	16	42	partly cloudy	Chestnut-sided Warblers profusely abundant, numbering about one-third of all warblers seen. Wild geraniums, white trilliums, buttercups.
17	SW	16	64	partly cloudy	Flock of Pine Siskins. White cabbage moth. Bird-life abundant. Red and white trilliums in full blossom. Hazel leaves ½ in. out. Maples 1-3 leaved out.
18	NW	10	62	cloudy	The first great wave of migrants appear to have moved on, the few here restless and keeping in tree-tops. Scarlet Tanagers mating. Poplars ½ leaved out.

Day	Wind-direction	Wind-velocity	Temperature	Character of day	MAY (Continued).
19	W	16	57	partly cloudy	Flock of Pine Siskins. Last Red-breasted Merganser and Lesser Scaups seen.
20	NE	12	44	clear	Migrants abundant again to-day. The forests show only faintest tinge of green. Jack-in-the-pulpit out.
21	SE	8	48	clear	Cherries in full blossom, willows nearly fully leaved out. Cottonwoods leaved out.
22	S	16	55	cloudy	Great host of migrants arrived to-day. Rained hard at 6 a. m.
23	NE	15	48	cloudy	Warblers profusely abundant. Occasional showers.
24	E	20	50	cloudy	A decrease in number of migrants.
25	SW	15	62	cloudy	Another wave of migrants to-day.
26	SW	17	56	cloudy	Several species of little flycatchers abundant to-day.
28	SW	11	55	clear	Migrants abundant. Connecticut and Mourning Warblers extremely abundant.
29	SW	8	60	cloudy	Last Common Tern.
30	NE	14	56	partly cloudy	Warblers abundant. Many in song.
31	NE	19	52	cloudy	Water very high at Fox Lake. Many nesting birds drowned out. Red-wing Blackbirds, King Rail, Blue-winged Teal nesting. Last Spoonbill Duck seen.
					JUNE
1	NE	25	50	cloudy	A wave of warblers in progress. They are very fat. A steady north wind. Warblers collected in droves on south side of woods.
2	NE	16	53	partly cloudy	Warblers abundant, keeping to tree-tops and exploring buds. The forest generally is only about one-third leaved out.
5	NW	20	60	clear	Warblers abundant. Hummingbirds abundant.
7	NE	20	53	cloudy	Warblers abundant. The following observed: Magnolia, Chestnut-sided c, Black-poll, Blackburnian, and many unidentified.
8	NE	22	54	clear	Warblers abundant, keeping well up in tree-tops. Trees leaved out as follows: Maples 2-3, Oaks ¼, Ash ¼, Elms 1-3. A flock of Crossbills seen at Lake Forest (*L. curvirostra minor?*). Olive-sided Flycatcher?
9	E	19	57	partly cloudy	Herring Gulls? Abundant at Waukegan. Warblers abundant and last seen on this date.

C—Common. T. C.—Tolerably common.

A few observations of general interest might have to be pointed out: During one of the cold, raw days in May a large flock of migrating Scarlet Tanagers were partially overcome and were driven to the ground in a large open pasture in search of food. Here scattered about they gave this part of the landscape a decidedly gory appearance and with their scarlet plumage presented a striking spectacle.

A number of species were abnormally abundant this spring, notably Ruby-throated Hummingbirds (May 5), Mourning and Connecticut Warblers, especially so on May 20, and Red-breasted Nuthatches (*S. canadensis*). An interesting fact about these Nuthatches was the extreme lightness of the underparts. Some days they were profusely abundant, but I cannot remember seeing one in the typical red-breasted plumage of the adult.

The occurrence of Crossbills (probably *Loxia curv. minor*) on June 8th, and of Pine Siskins on June 12th, is worthy of emphasis because of the unusual lateness of these dates for these species.

The frequency with which the warblers were heard singing during the migration was one of its most interesting features and offered an excellent opportunity for the study of their songs. Some of them are here given.

Black and White Warbler—*Tsee Tsee-Tsee Tsee Tsee*—5 lisping, very modulated notes.

Northern Parula Warbler—*Za-Ze-Za-Zee-Zee,* a buzzing, wiry trill, quickly given.

Black-poll Warbler—*It-tit-tit-tit-it-it-it,* seven short, sharply accented syllables, quickly uttered, high pitched and wiry, almost insect like.

Magnolia Warbler—*Whee Whee-a-Whee-Whee-a.*

Connecticut Warbler—*Twee-wee-wee-Twa-weet* or *Twa-ee-ee-ee-ee-at;* also *Whit-it-wheata-wheata-wheat.* Clear, loud, melodious warbler syllables closely run together and quickly uttered.

Canadian Warbler—*Twit-twee-ee-ee-chee-chee-chee-chee.*

Chestnut-sided Warbler — *Chee-chee-chee-chee-chee-chee-chee-chee*, a clear, well accented warble, like the song of Redstart. The syllables proceed in rising cadence up to the fourth syllable, the last two being strongly accented.

The notes used in this article have been very courteously put at my disposal by the department of zoology of the Field Museum of Natural History, and many of these have been furnished by the following persons to whom I take great pleasure in expressing my thanks:

Mr. E. E. Armstrong, Chicago; Mr. Henry K. Coale, Highland Park; Mr. F. S. Daggart, Oak Park; Mr. Ruthven Deane, Chicago; Mr. J. L. De Vine, Chicago; Mrs. J. V. Farwell, Jr., Lake Forest; Mr. B. T. Gault, Glen Ellyn; Miss Juliette Goodrich, Chicago; Miss Mary E. Schanck, Libertyville; Mr. Jesse L. Smith, Highland Park; Dr. R. M. Strong, Chicago; Mr. H. S. Swarth, Chicago; Mr. S. S. Visher, Chicago; Mr. F. M. Woodruff, Chicago.

Most of the above persons are amateurs, but are careful observers, while six collectors are included in this list, so that the records upon which this article are based can be considered reasonably accurate. The writer has also included his own records which were secured through daily observations and considerable collecting.

Prof. Wells W. Cooke has kindly furnished the notes on "Average date of last one seen" from the records of the U. S. Biological Survey. Mr. Gault furnished me with a most valuable list giving the average date when many species were first seen and has kindly consented to correct the proof of this article, owing to the writer's absence from this country.

NAME.	First Seen	Next Seen	Became Common	Last Seen	Average Date Last Seen	Average Date First Seen
Horned Grebe	April 4	Apr. 26	Apr. 27			
Pied-billed Grebe	Mar. 28	" 10	" 15			Apr. 10
Common Tern	April 24	" 25	" 25	May 25	May 26	
Red-breasted Merganser	April 6	" 7	" 12	" 19	" 1	
Blue-winged Teal	Mar. 24	" 16	May 2	" 31		Apr. 16
Canada Goose	Mar. 15	Mar. 18	Mar. 18	" 7	Apr. 16	
Great Blue Heron	Mar. 29	" 30	Apr. 21			Apr. 16
Green Heron	April 28	Apr. 29	May 19			" 30
Black-crowned Night Heron	" 20	" 21	" 12			" 26
King Rail	" 12	" 13	Apr. 18			" 22
Virginia Rail	" 16	" 18	" 21			May 2
Sora Rail	" 16	" 18	" 21			Apr. 22
Wilson's Snipe	Mar. 29	Mar. 31	" 7	May 19	May 4	" 4
Solitary Sandpiper	April 28	Apr. 29	May 19	" 26	" 14	May 5
Killdeer	Mar. 11	Mar. 16	Mar. 22			Mar. 26
Mourning Dove	" 24	" 29	Apr. 13			Apr. 8
Marsh Hawk	" 16	" 29	" 1			Mar. 26
Sharp-shinned Hawk	" 16	" 17	May 24			Apr. 10
Cooper's Hawk	" 10	" 22	Mar. 22			" 11
Red-tailed Hawk	" 16	" 21	" 16			Mar. 19
Red-shouldered Hawk	" 15	Apr. 27				" 26
Am. Sparrow Hawk	" 16	Mar. 17				" 31
Yellow-billed Cuckoo	May 12	May 13	May 14			May 18
Black-billed Cuckoo	" 12	" 13	" 18			" 15
Belted Kingfisher	Mar. 15	Mar. 23				Apr. 7
Yellow-bellied Sapsucker	" 19	" 20	Apr. 6	May 16		" 8
Red-headed Woodpecker	" 15	Apr. 29	May 3			" 28
Northern Flicker	" 13	Mar. 19	Mar. 22			" 5
Whippoor-will	May 12	May 13	May 13			May 14
Night-hawk	" 12	" 13				" 14
Chimney Swift	" 9	" 10	May 12			Apr. 28
Ruby-throated Hummingbird	" 13	" 14	" 19			May 14
Kingbird	" 7	" 12	" 12			" 3
Crested Flycatcher	" 9	" 12	" 19			" 20
Phœbe	Mar. 16	Mar. 17	Mar. 21			Apr. 8
Olive-sided Flycatcher	May 13	May 28		June 8		May 15
Wood Pewee	" 12	" 13	May 26			" 12
Yellow-bellied Flycatcher	" 13	" 16		June 12	May 24	" 25
Green-crested Flycatcher	" 9	" 12				" 20
Alder Flycatcher	" 8	" 12		May 26		" 20
Least Flycatcher	" 8	" 12	May 12			" 16
Bobolink	" 5	" 8	" 9			" 1
Cowbird	Mar. 16	Mar. 17	Apr. 1			Apr. 7
Red-winged Blackbird	" 15	" 16	Mar. 18			Mar. 17
Meadowlark	" 15	" 16	" 17			" 10
Orchard Oriole	May 12	May 13	May 18			May 11
Baltimore Oriole	Apr. 26	" 8	" 13			Apr. 30
Rusty Blackbird	Mar. 16	Mar. 17		Apr. 29	Apr. 24	" 1
Bronzed Grackle	" 16	" 17	Mar. 21			" 1
Purple Finch	" 30	Apr. 1	Apr. 28	May 14		" 18
Am. Goldfinch	" 9	Mar. 11	May 9			
Pine Siskin	May 12	May 17	" 19	June 12		Apr. 8
Vesper Sparrow	Mar. 20	Mar. 23	Mar. 24			" 15
Savanna Sparrow	Apr. 18	Apr. 21	Apr. 18			" 15
Grasshopper Sparrow	May 5	May 12				May 4
Lark Sparrow	Apr. 28	Apr. 29				
White-crowned Sparrow	May 8	May 9	May 8	May 22	May 20	May 7
White-throated Sparrow	Apr. 22	Apr. 23	Apr. 26	" 26	" 17	Apr. 15
Chipping Sparrow	" 21	" 23	May 4			" 19
Field Sparrow	Mar. 22	Mar. 23	Mar. 22			" 10
Slate-colored Junco	" 15	" 17	" 21	May 15	Apr. 30	
Song Sparrow	" 12	" 16	" 17			Mar. 13
Lincoln's Sparrow	" 18	" 21		May 13		
Swamp Sparrow	" 22	" 23	Mar. 27			Apr. 28
Fox Sparrow	" 15	" 17	" 16	Apr. 28	Apr. 17	" 7
Towhee	" 16	" 17	" 21			" 14
Rose-breasted Grosbeak	May 9	May 12	May 13			May 1
Indigo Bunting	" 14	" 15	" 16			" 8

NAME.	First Seen	Next Seen	Became Common	Last Seen	Average Date Last Seen	Average Date First Seen
Dickcissel	May 12	May 13	May 26			May 10
Scarlet Tanager	" 12	" 13	" 14			" 2
Purple Martin	Apr. 17	Apr. 20	" 6			Apr. 11
Cliff Swallow	May 9	May 12	" 17			May 14
Barn Swallow	Apr. 28	" 1	" 9			" 5
Tree Swallow	" 21	Apr. 27	" 4			Apr. 24
Bank Swallow	" 21	" 28	" 13			May 13
Bohemian Waxwing	Feb. 1	Feb. 2				
Cedar Waxwing	Mar. 29	Mar. 30	Apr. 1			May 12
Migrant Shrike	" 16	" 21	Mar. 23			
Red-eyed Vireo	May 13	May 15	May 18			May 10
Warbling Vireo	" *4	" 13	" 13	June 6		" 14
Yellow-throated Vireo	" 13	" 18	" 26	" 1		" 10
Blue-headed Vireo	" 12	" 17	" 28	" 8	May 17	" 18
Black and White Warbler	Apr. 26	" 5	" 12	May 30		Apr. 30
Prothonotary Warbler	May 12	" 13		" 26		
Blue-winged Warbler	" 13	" 17	" 13	" 30		
Nashville Warbler	" 13	" 18	" 18	June 5		May 3
Tennessee Warbler	" 14	" 15	" 18	" 3	May 24	" 9
Cape May Warbler	" 4	" 5	" 13	" 6	" 17	" 6
Yellow Warbler	" 8	" 9	" 13			" 1
*Black-throated Blue Warbler	" 8	" 9	" 14	June 12	May 30	" 6
Myrtle Warbler	Mar. 21	Mar. 26	Apr. 3	May 18	" 15	Apr. 16
**Magnolia Warbler	May 12	May 13	May 12	June 8	" 24	May 6
Cerulean Warbler	" 14	" 15		May 25		" 14
Chestnut-sided Warbler	" 12	" 13	May 13	June 9	May 24	" 6
Bay-breasted Warbler	" 13	" 14	" 13	" 2	" 22	" 5
Black-poll Warbler	" 13	" 16	" 26	" 9	" 26	" 13
Blackburnian Warbler	" 13	" 14	" 15	" 9	" 22	" 3
Black-throated Green Warbler	Apr. 28	Apr. 29	" 12	May 26	" 23	" 1
Pine Warbler	" 19	May 12		" 26		
Palm Warbler	" 23	Apr. 28	May 4	" 28	May 17	Apr. 25
Prairie Warbler	May 8	May 22				
Oven-bird	" 8	" 12	May 14			May 3
Grinnell's Water-Thrush	Apr. 28	" 12	" 12	May 28	May 21	
Connecticut Warbler	May 13	" 20	" 20	June 5	" 30	
Mourning Warbler	" 13	" 17	" 26	" 6	" 24	May 19
Northern Yellow-throat	" 12	" 13		May 26		" 1
Yellow-breasted Chat	" 13	" 14				" 16
Wilson's Warbler	" 12	" 14	May 19	June 5	May 24	" 14
Canadian Warbler	" 12	" 13	" 26	" 8	" 25	" 15
Am. Redstart	" 8	" 9	" 13			" 7
Catbird	" 8	" 9	" 11			
Brown Thrasher	Apr. 26	Apr. 28	" 5			
House Wren	" 24	" 28	" 5			
Winter Wren	Mar. 22	Mar. 24	Mar. 23	May 11	Apr. 19	
Long-billed Marsh Wren	Apr. 27	Apr. 28	May 2			
Short-billed Marsh Wren	Mar. 12					
Brown Creeper	" 19	Mar. 22	Mar. 23	May 12	Apr. 30	
Red-breasted Nuthatch	" 22	" 26	May 12	" 9	May 11	
Ruby-crowned Kinglet	" 21	" 24	Mar. 29	" 7	" 7	
Golden-crowned Kinglet	" 21	" 23	" 25	" 16	" 16	
Blue-gray Gnatcatcher	Apr. 23	Apr. 28	May 5			
Wood Thrush	May 6	May 12	" 12			
Willow Thrush	" 6	" 12	" 12	June 6	May 26	
Gray-chested Thrush	" 12	" 13	" 12	" 6	" 25	
Olive-backed Thrush	" 9	" 12	" 15	May 30	" 28	
Hermit Thrush	Mar. 21	Mar. 22	Mar. 26	" 7	" 5	
Am. Robin	Feb. 28	" 11	" 22			
Bluebird	" 28	" 14	" 15			

*English Lake, Ind. **Reported at Highland Park, Lake Co., on Apr. 11, by J. L. Smith.

A MIGRATION FLIGHT OF PURPLE MARTINS IN MICHIGAN IN THE SUMMER OF 1905.

FRANK SMITH.

In the Bulletin of the Michigan Ornithological Club, Vol. V. (pp. 77-78), the writer described an extensive flight of Sparrow Hawks which took place August 30th, 1904, at Macatawa, Mich., a summer resort located on the east shore of Lake Michigan, southwest from Grand Rapids. More than a thousand hawks passed the point of observation within a period of about seven hours. They were flying southward along the lake shore, while a moderately strong wind was blowing from the northeast, and had been blowing from a similar direction during the preceding day and night. Unfortunately no effort was made to determine whether similar numbers of hawks were passing over the territory farther inland, and so there was merely an assumption that a concentrated stream of these birds was passing along the shore, and that this concentration was due to the flight of the hawks with the wind until they reached the shore, which they then followed in preference to continuing their original direction, which would have taken them over the lake.

On August 15, 1905, at the same locality, the writer had an opportunity to watch an extensive flight of Purple Martins. Again a moderately strong wind was blowing from the northeast, which direction it had held during the previous night. Actual counts of the numbers of individuals passing south, at various intervals between 9 a. m. and 12:30 p. m., gave an average of thirty-two per minute. As the whole width of the bird stream was too great to be under observation at one time, there must have been more than ten thousand individuals which passed the point of observation on that day.

On this occasion it was determined to ascertain whether or not the great numbers were limited to a narrow area along the lake shore. Advantage was taken of an interurban car going to Holland, which is about six miles inland, and there observations were made for comparison. Between 11:03 and 11:30

a. m. only four Purple Martins were seen flying about town, where they had previously been common. The contrast in numbers was greater than had been anticipated. At noon on the return to Macatawa the Martin flight was found to be still under full headway as shown by the count of 92 birds between 11:59 and 12:02 and of 237 between 12:12 and 12:17½. The area over which the Martins were abundant was found to extend scarcely one-fourth of a mile inland.

The wind changed but little during the day and following night, and the next morning many new arrivals among the Warblers and Flycatchers were seen. They formed the first Warbler "wave" of the fall migration.

These observations are readily explicable on the assumption that the direction of the flight of the birds corresponded with that of the wind, while they seem to give no support to the "beam-wind" theory. It seems probable that a series of careful observations by persons living on the shores of Lake Michigan, and on those of other large inland bodies of water with north and south shore lines, might lead to a more satisfactory knowledge of the relations existing between the direction of the wind and that of the flight of migrating birds in general.

The temperature records made at Grand Rapids and other points in Southern Michigan during the 14th, 15th and 16th of August, 1905, show almost no change of temperature, and so apparently eliminate that factor from the problem of determining what agencies were most involved in initiating the particular migration flight just described. It is not often that the change to a favoring wind is unaccompanied by changes of temperature, but here was an opportunity to observe the results following a change in the wind without the complication of accompanying temperature changes.

The barometer was rising at the time of the flight, and continued to do so during the day and following night. During the spring, extensive migration movements more commonly take place at the time of a falling barometer. In the autumn they usually occur with a rising barometer rather than with a falling one. Hence neither a rising nor a falling barometer

would seem to furnish the stimulus directly concerned in initiating such movements.

As to the question of food supply, it is hardly probable that a scarcity would have arisen so early in the season.

A consideration of all these various factors of wind direction, temperature change, barometric pressure, and food supply, in connection with the migration movements described above, leads quite clearly to the conclusion that the favoring wind may be considered as the most potent in bringing about the movements. When the breeding season is over, and a general physiological condition of readiness for flight is attained, then the favoring wind may furnish the necessary stimulus for a migration flight.

ON MAKING THE ACQUAINTANCE OF INDIVIDUAL BIRDS.

BY W. E. SAUNDERS.

Our study of birds is almost invariably based upon experiences with individuals which are grouped together and summarized into a total which we entitle "Our observations upon the species of so-and-so." This method is adopted because of the almost insuperable difficulties in the way of the adoption of any other course, and it has become so much the habit that we hardly ever stop to regret that we cannot differentiate between individuals and thereby determine individual preferences, habits, and vagaries. How much we lose by this, both in the sum total of knowledge gained and in our enjoyment of the individual acquaintance which we might make were the circumstances otherwise, it would be hard to say, but that there is a loss can not be doubted, and any occurrences which prove the possibility and emphasize the value of individual acquaintance will, I hope, be useful.

Years ago, a strong hint, and one of the first, was given to me, by a heronry in which some sets of eggs were unspotted, while others were more or less heavily spotted with deep

black. After a good deal of cogitation, the thought occurred that herons had the habit of fishing on the pound nets in Lake Erie, ten miles distant, where they got pitch and tar on their feet and returning home without wiping off on the door-mat,

Fig. 7. Jones, 1907.

White-crested Cormorant (*Phalacrocorax dilophus cincinnatus*).

the pitch was rapidly transferred to the egg-shells. On a test it was found that these spots which obstinately resisted washing with water dissolved and vanished on the application of

ether, proving at once the correction of the theory. The occurrence of spotted sets and unspotted sets in the same tree showed that there was a great and constant difference in the habits of individual herons, but with such a shy and wary bird, nesting at a distance from home it was impossible to follow out the line of observation.

Quite different was the case in the fall of 1905 when two Robins with white collars appeared on a Sunday in October in the birds' bath outside my dining-room window. From migrants one does not expect to learn much, so that plans were at once laid for the capture of these two birds on the morrow, as shooting on the Sabbath in Canada is illegal as well as contrary to our peaceful and Sabbath-loving Canadian habits. The birds remained around my garden all that day in the company of about twenty other migrants, but that night came a north wind with rain and the migrants all vanished but one—gone south, of course, the experienced (?) observer at once concluded,—and my vision of a white collared pair, doubtless brother nestlings, as an addition to my cabinet, vanished, as I knew that the chances of meeting them on their return in spring, providing that they lived so long, were slim indeed.

Through that week the number of migrants (from the north, of course) gradually increased, and by Friday had again reached large numbers, and my amazement was great when a telephone message from home about 8:30 on Saturday morning said that "The White Collared Robin is in the bath." In ten minutes it was in the hand of a wondering ornithologist who was busily speculating on how much he did *not* know about migration habits. At noon, the companion bird appeared and was also secured, this proving almost beyond the possibility of a doubt that the visitors of today and last Sunday were identical. Plainly, therefore, when migrants leave us in fall and "go south" they will sometimes return north within a few days, or else their disappearance does not necessarily predicate a southern journey.

Sometimes one will get from nesting conditions a hint as to the domestic relations of the parents. For many years I took

one set of eggs each year from the Red-shouldered Hawks nesting in a certain woods fifteen miles from London. Until 1900 all these eggs were large; the last few sets averaging larger than those of the Red-tail, but when in 1900 this hen disappeared from the scene the bereaved husband took unto himself a spouse who laid the smallest eggs I ever saw for a Red-shoulder, smaller than the average Broad-wing.

Now if it is the case, as it may reasonably be, and as has been proved at times, that large eggs are from a large hen, and vice versa, then, remembering that the female Red-shoulder Hawk is larger anyway than the male, what a scene of domestic infelicity is here hinted at and what decisive and extreme steps the poor henpecked widower took to insure that his next venture should be productive of less tyranny! Evidently there is no divorce court among the Buteos, or he would have availed himself of it.

Members of my family are confident, but not entirely positive, of the identity of the Song Sparrow who visits the bath daily and has lived much in our garden for three years, and who has an invariable habit of scratching his head on both sides, though chiefly on the right, while bathing. Nothing, however, of special interest has been learned from this individual.

A certain Baltimore Oriole, also a resident of three years' standing, has been identified in the best way of all, by his voice. He has a striking call note of two tones, dropping an octave from F to F with the latter note staccato. Anxiously looked for in the early spring, for he is surely *Our Bird*, he is ever welcome; and there is no grudge even though he punctures and wastes a generous share of our plum crop, for he is *Ours*. While his undiscovered residence is almost certainly within one hundred yards of my garden I have heard his call in numerous nearby localities, showing his range to extend through a radius of about three or four blocks each north and east, but on the west other Orioles are nesting and he has not yet been heard there. To the south is a small park, about 200 x 400 yards in area, but, though one would imagine it to be a very tempting home, he has not yet been noticed in the

southern part of it, and he certainly spends most of his time in the gardens in our own block, where are many fruit trees and probably a greater variety of food than in the park, whose arboreal fauna consists mainly of the soft maples, Acer dasycarpum.

That anything of much scientific value has as yet been gained from such individual acquaintance is not claimed and that anything of great value will come is not certain, but what it means to the bird student and bird lover, to have his individual friends return to his ken year after year will be difficult to over-estimate, and the value he will set on such individual acquaintance will probably be far beyond that of any actual gain he may make from the acquaintance, just as we value our human friends, not for what they are, or may be to humanity, but for what their friendship means to us.

Is there a more enticing field opening before us than this one of individual bird acquaintances?

SUMMER BIRDS AT LAKE GENEVA, WIS.

BURTIS H. WILSON.

During the summer of 1907 it was my great privilege to spend the two weeks from July 6th to 20th at the Y. M. C. A. encampment at Lake Geneva, Wisconsin. This beautiful lake lies near the southern boundary of Wisconsin and about 35 miles west of Lake Michigan. It is an irregular shaped body of water, about 7 miles long from east to west, with a shore-line of about 28 miles. At its widest point it is about 1½ miles wide. Bordered by high bluffs, the tops of which are rolling, cultivated farm lands, the lake lies much below the level of the surrounding country. There are three small towns along the lake shore, while a great part of the bluffs and shore of the lake are occupied by summer cottages, camps, and improved park lands belonging to country clubs. In some places the bluffs are overgrown with heavy underbrush, but along most of the shore the underbrush has been cleared away,

leaving the open second growth timber surrounding the camps and cottages. A marsh of reeds and rushes borders the lake's inlet at its eastern end and its outlet at the western end, while several smaller marshes occur at various points along the shore. The one at the west end of the lake is about 1½ miles long and nearly as wide, through which winds a narrow, sluggish stream almost choked in places by the rushes.

Two young men staying at the camp were found to be ardent bird hunters, and together we worked over a part of the shores and bluffs near the camp and a little of the surrounding country where were seen a number of the common field birds which were not seen at all in the immediate vicinity of the lake. Many of the birds were seen feeding young recently out of the nest, while a few nests containing eggs or young were found. All the birds seen probably breed in the vicinity of the lake or in the surrounding country.

On the lake shore near the Y. M. C. A. camp was the electric pumping station for supplying water to the Yerkes Observatory, which is situated on the top of the bluff. A lightning arrester in a wooden box about a foot square was fastened about 18 feet from the ground to the top of a pole carrying the electric wires, and just outside the pumping station. In the side of this box during some previous year a Flicker (probably) had bored a good-sized hole, which a pair of Crested Flycatchers had taken possession of for a home, and during part of my stay were feeding young which grew large enough to leave the nest shortly before my departure from the camp. The pole stood near the lake shore at the intersection of two paths along which hundreds of people passed every day. The birds were very tame, repeatedly carrying food to the young while a number of people were standing watching close by.

About a half mile west of the camp I discovered the nest of another pair, this time in a cavity about 40 feet up in a large hard maple which stood by the boat-landing to one of the large summer cottages. This pair also were feeding young in the nest. A third pair was found at home in the dead top of a large oak on a hill at the west end of the lake, but which

particular cavity of the six or more in the top of this tree was their home I was unable to stay long enough to discover.

Appended is a list of the birds seen during my stay. The most noteworthy feature of this list seems to me to be the entire absence of Chickadees and House Wrens, two birds hard to overlook in any locality. In addition to the birds mentioned one Rail (species unknown) was seen in the marsh at the west end of the lake, a pair of Wild Ducks were seen on the lake near its inlet, and twice a large dark-colored Hawk, resembling the Rough-leg, was seen circling over high in air above the bluffs. Surely the Rough-leg is not a summer resident so far south:

1. American Bittern.
2. Least Bittern.
3. Gt. Blue Heron.
4. Little Blue Heron. (?)
5. Green Heron.
6. Black-crowned Night Heron.
7. Bartramian Sandpiper.
8. Spotted Sandpiper.
9. Bob-white.
10. Mourning Dove.
11. Red-tailed Hawk.
12. Sparrow Hawk.
13. Screech Owl.
14. Yellow-billed Cuckoo.
15. Belted Kingfisher.
16. Hairy Woodpecker.
17. Downy Woodpecker.
18. Red-headed Woodpecker.
19. Northern Flicker.
20. Nighthawk.
21. Chimney Swift.
22. Hummingbird.
23. Kingbird.
24. Crested Flycatcher.
25. Phœbe.
26. Wood Pewee.
27. Alder Flycatcher.
28. Blue Jay.
29. Crow.
30. Cowbird.
31. Red-winged Blackbird.
32. Meadowlark.
33. Orchard Oriole.
34. Baltimore Oriole.
35. Bronzed Grackle.
36. Goldfinch.
37. Vesper Sparrow.
38. Chipping Sparrow.
39. Field Sparrow.
40. Song Sparrow.
41. Swamp Sparrow.
42. Towhee.
43. Rose-breasted Grosbeak.
44. Indigo Bunting.
45. Dickcissel.
46. Scarlet Tanager.
47. Purple Martin.
48. Cliff Swallow.
49. Barn Swallow.
50. Bank Swallow.
51. Roughed-winged Swallow.
52. Red-eyed Vireo.
53. Warbling Vireo.
54. Blue-winged Warbler.
55. Yellow Warbler.
65. Oven-bird.
57. Northern Yellow-throat.
58. Redstart.
59. Catbird.
60. Brown Thrasher.
61. Short-billed Marsh Wren.
62. Long-billed Marsh Wren.
63. White-breasted Nuthatch.
64. Tufted Titmouse.
65. Wood Thrush.
66. Robin.
67. Bluebird.
68. English Sparrow.

AN ADDITION TO THE BIRDS OF OHIO.

LYNDS JONES.

Writing under date of May 25th, Mr. William P. Holt, of the Toledo High School, announces the capture near there of a Cory's Bittern (*Ardetta neoxena*), a long sought and much anticipated bird. The bird was captured in the Casino marsh on May 25th. Mr. Holt states that the specimen is in fine condition, and that he had seen either this bird or others in the same situation three times during the week. It seems entirely within reason that this bird was not a solitary one, but that at this time, when the Least Bitterns were so uncommonly numerous in these marshes, as well as in the marshes all along the southern shore of the lake, that there might have been something like a flight of them. However that may be, no other records are forthcoming. This species should be added to the list of Ohio birds in its proper place in the regularly occurring species because its range clearly covers the state, this record proving it.

A SCARCITY OF BIRDS IN THE NORTHERN STATES.

Reports come in from many parts of the country north of the southern border of Ohio to the effect that birds are remarkably scarce for the season. The suggestion has been made that this scarcity is likely due to the unfavorable breeding season of last May and June, when the weather was cold and very wet, so that the usual number of young were not reared. This might easily be true if there was also an unusual mortality among the old birds, or if conditions of weather or food supply were such, during the summer and autumn months, that an increased mortality occurred. Before any final decision can be relied upon we should know what are the conditions the whole country over, for if there be any unusual

massing of birds in the south the whole theory would totter. In this connection it is urged that all observers make an unusual effort to make records of abundance during the remaining wintry months as well as during the period of migration, with a view to comparing the numbers of individuals with those which form an average for your vicinity in normal years. The opportunity for learning something more definite about the variations of abundance in birds and its relation to associated phenomena is an unusual one. The editor would be glad to correlate notes which may be sent to him for publication in the June Bulletin.

THE BIRDS OF OHIO: CORRECTION AND NOTE.

LYNDS JONES.

In his Birds of North and Middle America, Prof. Robert Ridgway leaves open the question of the forms of two birds in the Lower Lakes region. He had not seen specimens from the region. One of these is the Long-billed Marsh Wren and the other Traill's Flycatcher. These were entered in my Catalogue of the Birds of Ohio as *Telmatodytes palustris* and *Empidonax traillii* respectively, with the note that *E. t. alnorum* might be looked for as a migrant across the state. Numbers of specimens of each of these forms have since been collected in various parts of the state, and it is now possible to speak with certainty concerning the forms represented in Ohio. Specimens of the flycatcher have been compared with typical *E. traillii* from the western states, and have also been submitted to Messrs. Brewster and Oberholser for comparison with larger series of skins. The unanimous conclusion is that Ohio specimens are *E. t. alnorum*, Alder Flycatcher, and that no *E. traillii* occur in the state. Likewise, the wrens have been carefully compared with typical *T. palustris* and prove to be typical and not the Prairie form, *T. p. iliacus*.

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EDITORIAL.

Copies of this Bulletin are sent to delinquent subscribers in the belief that they intend to renew. This is the last time copies can be sent without renewal, because of the recent postal laws.

With the inauguration of the new era of the Bulletin, and we trust also of the Club, it is most fitting that he for whom we are named should occupy first place. This biographical sketch of a single incident in the life of "The Father of American Ornithology" is the first of a series by one who has devoted much time and care to the subject, from an impartisan view-point. We shall await the appearance of succeeding chapters of this biography with keen anticipation.

The last of the series of articles on "The Birds of Point Pelee" is deferred to the June Bulletin. This will give the authors an opportunity for one more season's study of the spring movements of the birds, and therefore add to the value of the list. The editor hopes to follow this list with one or more articles correlating bird movements on the Ohio shore with those at the Point.

The March election of members, which has usually been conducted through these pages, will this year be by special Bulletin to members only. In the same connection there will be published a list of members and officers. On account of the absence of the President from the country at the time when the call for nominations should have been made, and the election gotten under way, the constitutional time passed and consequently the old officers will hold over. We trust that this will not occur again.

A great deal of good work was done on the migrations during the spring of 1907, and the results were valuable. It is not likely that the coming spring will be like the last one, but careful studies of the migrations during the remainder of the season, with a view to comparisons with those of a year ago, cannot but be interesting and valuable. How much data have any of us touching the fluctuations of the individual birds making up the species, even for a limited time and over a limited space? We venture the statement that few migration notes contain much of such information, and yet this is of great interest and will help materially to solve some of the problems of migration in its relation to weather. Let the good work go on.

Either there is little interest in studies of the nesting of the birds or else the difficulties in the way of such studies have thus far seemed too great to be overcome, judging from the meager returns from blanks distributed last spring. We wish again to call attention to the great need there is for careful systematic studies of the nesting habits of practically all our native birds. There is no field of study of the birds which is so certain to yield large returns as this. Some of us are so situated that studies of this sort are difficult because of remoteness from breeding haunts, but some certainly have both time and opportunity for consecutive studies of at least a few nests. Blanks for entry of the results may be obtained by addressing either Mr. Frank L. Burns, Berwyn, Pa., or Lynds Jones, Oberlin, Ohio. All the blanks that you can possibly need will be gladly supplied gratis.

The American Nature-Study Society was organized at Chicago, January 2, 1908, for the advancement of all studies of nature in elementary schools. The Council for 1908 consists of: President, L. H. Bailey (N. Y.); Vice-Presidents, C. F. Dodge (Mass.), F. L. Stevens (N. C.), V. L. Kellogg (Cal.), W. Lochhead (Canada), F. L. Charles (Ill.); Directors, D. J. Crosby (D. C.), C. R. Mann (Ill.), S. Coulter (Ind.), H. W. Fairbanks (Cal.), M. F. Guyer (O.), O. W. Caldwell (Ill.), G. H. Trafton (N. J.), F. L. Clements (Minn.), Ruth Marshall (Neb.), C. R. Downing (Mich.); Secretary, M. A.

Bigelow (N. Y.). The Council will publish *The Nature-Study Review* (sample copy free) as the official organ, and send it free to members whose annual dues ($1.00) are paid in advance. Teachers and others interested in any phase of studies of nature in schools, are invited to send applications for membership to Secretary, A.N.S.S., Teachers College, New York.

FIELD NOTES.

ANOTHER GREAT BLACK-BACKED GULL FOR OHIO.—Records of this Gull (*Larus marinus*) are so unusual in the state that their publication is worth while. Professor J. S. Hine reports the capture of a female on the State University grounds, on the Olentangy river, December 16, 1907. All records thus far have been winter records. It is a little strange that specimens have not been found along the lake border as well as inland. LYNDS JONES.

ANOTHER BRUNNICH'S MURRE RECORD FOR OHIO.—On about the 22nd of December, 1907, a fine specimen of Brunnich's Murre (*Uria lomvia*) was brought to me. It was taken alive a few days before near Jefferson, Ashtabula county, Ohio. This is the first one which has come into my possession since December, 1896. The bird was in excellent winter plumage, but rather thin in flesh.

ROBERT J. SIM, *Jefferson, Ohio.*

(A wing of this species was found on the beach of the Cedar Point Sand Spit by the writer late in December, but no birds have been seen nor any others reported from this side of Lake Erie. Reports from the Canada side from Mr. P. A. Taverner state that the birds appeared in that vicinity, but were starved before the middle of January. These reports indicate another flight of less extent than the one of 1896.—ED.)

THE BOHEMIAN WAXWING AT GLEN ELLYN, ILL.—The appearance here on January 22, 1908, of the Bohemian Waxwing (*Ampelis garrulus*) adds another interesting bird to the Glen Ellyn list, and making, as far as I am aware of, the original records for the county as well. An irregular winter visitor to this corner of the state, it has been reported and taken on more than one occasion at several points along the shores of Lake Michigan, years, however, usually elapsing between such records. My bird was in a flock of Cedar Waxwings found feeding on the decayed and yet persistent fruit of the apple on our place, and which presented in their actions a most animated sight.

The great difference in size and the extended black on throat made identification easy enough; but my time was limited, for no sooner was the discovery made than the entire flock immediately took wing and was off. This was to be regretted as there may have been additional Bohemians in the lot.

BENJ. T. GAULT, Glen Ellyn, DuPage Co., Ill.

TOWHEES UNUSUALLY COMMON IN OHIO.—In direct contradiction to the general condition of the bird population the Towhee (*Pipilo erythrophthalmus*) is reported as wintering in considerable numbers over at least the northern half of the state. While one may be found here and there in particularly favorable places during almost any winter it has never before been true that numbers of them together sufficient to be called flocks have been recorded. Mr. George L. Fordyce, reporting from Youngstown, finds both male and female plumages in the same flock. About Oberlin only the male plumages have been observed. It would seem that weather and food conditions distinctly favorable to the maintenance of the Towhee would be fully as favorable for the sparrows, Cardinal, and Junco.

LYNDS JONES, Oberlin, Ohio.

A GOLDEN EAGLE TAKEN IN ALABAMA.—The Golden Eagle (*Aquila chrysaëtos*) is supposed to be of rare occurrence east of the Mississippi River,—hence this note. An immature specimen was taken near Florala, Alabama, January 17, 1908. This eagle, together with another, very probably of the same species, had killed some sheep and lambs for a sheep owner, who then put out some poisoned mutton. The eating of this poisoned meat caused the death of one of the eagles. Measurements showed that it was practically full-grown, although it had not the adult plumage. The back of the head and nape were ochraceous buff, streaked with gray and brown. The tarsi, which were feathered to the toes, and the under tail-coverts were ochraceous buff finely streaked with brown. The tail was crossed by grayish bars. The rest of the plumage was dark brown. The bill was blue black. The iris, which is hazel brown in the adult, was very light yellow in this specimen.

Sheep raising is an important industry in southern Alabama and western Florida, and the owners claim that the Bald Eagle, also, kills sheep. For this reason, many eagles have been destroyed during the past years, until now these magnificent birds are somewhat rare in this section.

G. CLYDE FISHER.

RECORDS FROM CEDAR POINT, OHIO, WINTER OF 1907-08.—The unusual character of this region, so often exploited in these pages, grows on one the more familiar he becomes with it. The records which

seem to be of peculiar interest for the period covered by the heading are: A flock of 42 American White-fronted Geese, a single Double-crested Cormorant, and the first Snowflakes (31), on November 1. The first Pine Siskin and Winter Wren, and the last Swamp Sparrow, Killdeer, American Coot, and Hooded Merganser, on November 18. The last Horned Grebe on December 27. The last Canada Geese and Bonaparte Gulls, and the presence of two Bob-whites, on January 6. The small amount of ice on the lake at any time has enabled American Mergansers, American Golden-eyes, and Buffleheads to remain all winter, and more than the usual numbers of Herring Gulls have been present. On the other hand, Song Sparrows have been very scarce. LYNDS JONES, Oberlin, Ohio.

A BELATED ORIOLE.—Among my fall notes for 1904 are various references and occasional detailed statements in regard to an adult male Baltimore Oriole (*Icterus galbula*) that remained about our premises until very late in the season—from the 15th to the 29th of November, the date when it was last seen. For a bird he appeared strong and active. His late stay seemed, therefore, the more remarkable.

The weather during this period was generally fair and agreeable for so late in the year; the prevailing winds being southwesterly, and with a mean temperature of 48°. Some days 66° was reached (Nov. 27) during the warmest part of the day, and then again the mercury dropped to 26°. Wintry weather set in the first of December and apparently may have caused the bird's hasty departure about that time. A snow flurry of the 25th of November, however, with a registered temperature of 40 at 2 p. m., seemed to have little or no effect upon him.

During his late stay with us he was observed to feed largely on the frosted and hanging apples, always seeking out those which were the most decayed and therefore the tenderest. Once he was discovered feasting on ripe red asparagus berries and showed a spirit of resentfulness as I approached within a few feet of him. He also drank at the poultry pans, and at times ate freely of the food prepared for the hens, along with the English Sparrows.

A general summary of these facts has seemed worth while recording since the usual departure of the Baltimore Oriole from here is early in the fall, the bulk leaving in August, while the first week in September ordinarily sees the last.

BENJ. T. GAULT, *Glen Ellyn, Ill.*

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JUNE WITH THE BIRDS OF THE WASHINGTON COAST.

BY LYNDS JONES.

Down the Coast to Destruction.

While we found the way to Destruction as easy and as pleasant as it has been depicted in solemn injunction to the careless youth, we are fain to declare that once arrived at the place its supposed terrors have wholly given place to delights indescribable! It is only too true that this rock, covered with a dense growth of bushes where the light keepers have not cleared it away for beautiful lawns and fertile garden spots, has been the dread of the coasting sailor in times past. It stands out boldly into the Pacific, flanked on all sides by deadly reefs and shoals. No boat larger than a small lighter can find a landing place after threading the tortuous ways among the outlying rocks.

Rain and wind, which had held us for five days at LaPush, finally abated. The trip down was uneventful save for the many new islands and rocks with their bird population, and the slightly changing fauna. We noted the gradual disappearance of the Tufted Puffin and California Murre and the presence of Pigeon Guillemot and Western Gull among the sea birds. Glaucus-winged Gulls were still numerous and apparently the only nesting gulls on the island.

Our memories of Destruction Island will be perpetually divided between the Rhinoceros Auklet, which breeds in abun-

dance there, the Black Oystercatcher, and the royal entertainment which we received at the hands of the light keepers.

The three days upon the island were devoted to the study of the nesting habits of Pigeon Guillemots, Black Oystercatchers, and Rhinoceros Auklets, more particularly the Auklets, which were far the most numerous nesting birds of the island. During the day nothing is to be seen or heard of these birds, but at night their curious calls and whirring flight are everywhere heard. The birds burrow into the perpendicular banks which face the ocean in many places, or into the turf-covered banks, which are only a little less steep. The burrows may lead almost straight into the bank for a dozen to fifteen feet, or more nearly parallel the surface, apparently depending somewhat upon the character of the soil. The few attempts to burrow into coarse gravelly material were soon abandoned in favor of the sandy soil. A very few nest burrows were made within a foot of the surface of the turf and could be uncovered from above. Every burrow examined was forked, the shorter and unused branch invariably being the one nearer the face of the bank, while the used branch continued some distance into the bank, ending in a nest of grassy material mixed with feathers where the hole was enlarged for more room.

Our visit was clearly at about the middle of the breeding time of these birds, for there were half-grown young and eggs less than half incubated, and all grades between. The parent birds were usually found with the young, and often with the eggs. They had the very uncomfortable habit of vigorously using the strong bill upon the intruding fingers, sometimes drawing blood. The young birds seldom offered any resistance, but crouched in the end of the burrow. They are covered with a soft, black down, with a light patch beneath. The eggs were usually filthy from the muddy feet of the old birds, but with the filth washed away revealed a nearly white ground color with much obscured shell markings of lavenders and purples, much like the eggs of the Tufted Puffins.

It is difficult to estimate the numbers of the Rhinoceros Auklets which nest upon this island, because their distribution is not uniform. An estimate based upon the apparent average

number of burrows to the square rod gives 5,000 burrows or 10,000 birds for the entire island. At the time of our visit this number should be increased by about 2,000 downy young. Only one egg is laid in a burrow, and apparently only a single brood is reared in a season.

We did not discover any natural enemies of this Auklet on Destruction Island. Indeed, it is difficult to understand how there could be any enemy dangerous to the egg or young in

Fig. 1.

Destruction Island Light.

the burrow. Snakes and predaceous animals which could enter the burrow would find nothing to eat at other times than the nesting season of the birds. It is therefore reasonable to suppose that this burrowing sea bird may live for ages on this isolated bit of land and multiply its generations.

Next in interest were the Black Oystercatchers, which were more numerous upon this island than any other place which we visited—twelve pairs in all. They were the first inhabitants to protest our landing, and the last to hurl vile epithets after

us upon our departure. There were no nests upon the top of the island, but one was placed at the angle where the bluff met the storm-washed rocks. Most of the nests discovered were built in slight to considerable depressions in the rock, the material used being either rock chips or dry grass, usually the former. One nest was found on the only bit of beach which the island boasted. While some nests were in the midst of vegetation, as shown in the picture, the prevailing position was on the bare rocks. The protective coloration of the eggs which lay upon the rock chips made careful scrutiny of the probable vicinity of the nest necessary; and even then some nests were at first overlooked. The appearance and calls of these elves of the sea must be seen and heard to be appreciated. No words that I can find give more than the merest caricature.

One instance will give an idea of the cunning of the Oyster-catchers. We had quietly approached the brow of the cliff, next the slender beach, wholly under cover and early in the morning, in the hope of catching the old bird sitting. Cautiously peeping through the vegetation without exposing ourselves to view, two birds were seen on the rubble below. One of them was nestling down in a very suggestive manner, the other apparently standing carelessly. As we pushed aside the bushes and prepared to descend the sitting bird cautiously sneaked away, apparently feeding as she did so, while the other retained the careless attitude. As we approached the foot of the cliff both birds took wing, protesting loudly, the one standing not having moved from his tracks before. One of us had carefully marked the spot which the sitting bird left so cautiously, confidently expecting to find the nest; the other went to the place of the standing bird—and the nest was here! The picture shows the two eggs in their setting of pebbles and drift. Was it conscious deception by both birds, or only an ordinary reaction?

Two nests of the Pigeon Guillemot were found in their characteristic position in little wind-holes worn out of the sandstone. One of these was in a part of the reef shown in the illustration. There were probably about fifteen pairs about the island. These birds had the habit of resting almost flat-

bodied upon the rocks, or standing erect upon a sharp pinnacle at attention when any disturbance threatened. When forced to fly they merely launched out into the air and quivered or sailed down to the sea, plumping clumsily into the water with a great splash.

Two nests of the Glaucus-winged Gull were found, one having evidently been destroyed by crows or ravens which regularly came out from the mainland. Numerous Gulls found

Fig. 2.

Destruction Island reefs: the mainland in the distance.

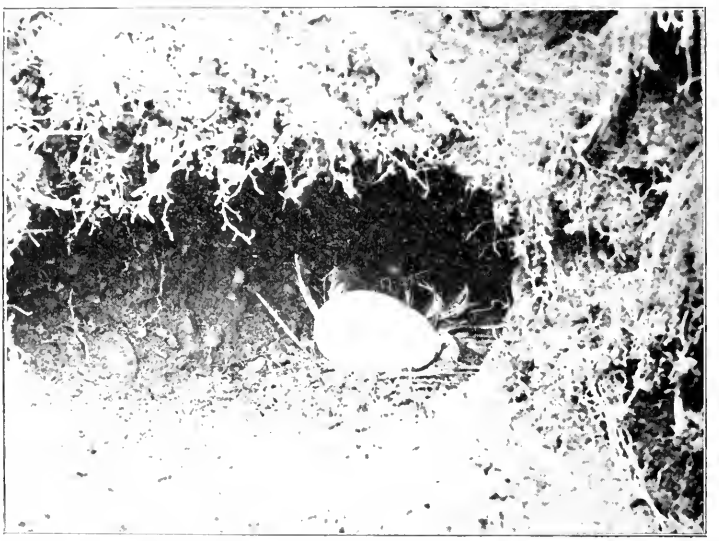
perches upon the outlying rocks, but apparently few of them were breeding birds. An occasional Western Gull was seen among the rest.

The other resident birds of Destruction Island, which we found, were as follows: Rufous Hummer (*Selasphorus rufus*), Rusty Song Sparrow (*Melospiza cinerea morphna*), Sooty Fox Sparrow (*Passerella iliaca fuliginosa*), Barn Swallow (*Hirundo erythrogastra*), Lutescent Warbler (*Helmin-*

thophila celata lutescens), Yellow Warbler (*Dendroica æstiva*), Western Winter Wren (*Olbiorchilus hiemalis pacificus*), Russet-backed Thrush (*Hylocichla ustulata*), Western Robin (*Merula migratoria propinqua*). There were also a number of transient species, but they scarcely need mention in this connection.

The two women went on by canoe to Granville, so that the return northward was effected in a much lightened canoe, and

Fig. 3.



Rhinoceros Auklet (*Cerorhinca monocerata*).
Egg and nest at the end of a short, shallow burrow.
Destruction Island.

consequently more comfortable and more quickly. It was only poetic justice that the horrors of the sea gat hold upon us after three days of gourmandizing, but respite and relief were found in a short stop on Alexander Island, well toward our rendezvous at LaPush. Here we found Glaucus-winged Gulls, Tufted Puffins, Cassin Auklets, and Kæding Petrels in undisputed possession. Studies of these birds will be given in a later paper.

ALEXANDER WILSON.

II. THE MYSTERY OF THE SMALL-HEADED FLYCATCHER.

BY FRANK L. BURNS.

Dr. Coues has written, "The existence of any such bird is doubtful. The history of the bird begins with a misunderstanding between Wilson and Audubon, and the whole record from that day to this is a tissue of surmises." In 1872, he writes "There is no reasonable probability that any species of this family inhabiting the Middle States in June, remains

Fig. 4.

Black Oystercatcher (*Hæmatopus bachmani*).
A rock chip nest in a depression in the rocks surrounded by vegetation.
Destruction Island.

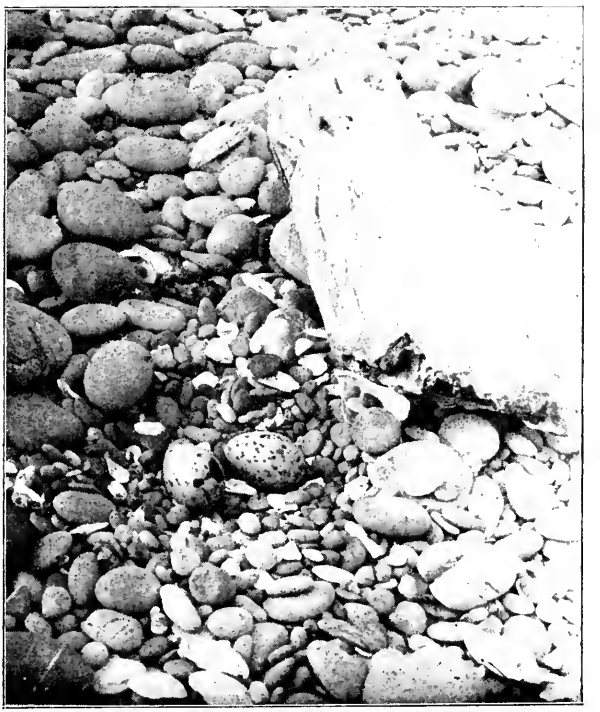
to be detected. I have no doubt the bird is a Dendroica, and nothing in the description forbids its reference to one of these birds, perhaps *D. pinus* (=*vigorsii*)." Later, 1903, he fur-

ther modifies his views:" Continues to be unknown. * * * There certainly was such a bird, for Wilson figured it, and he never drew upon his imagination; but we do not recognize his plate, nor that of Audubon. The mysterious bird has been claimed for New Jersey, Kentucky, Massachusetts, Wisconsin, and Kansas. I have long believed it to be the Pine-creeping Warbler." Ridgway evidently is not of Coues' opinion, stating as late as 1902, that "I am unable to satisfactorily dispose of this hypothetical species by reference to any other, the peculiar combination of characters indicated in the original description, * * * being shared by no other bird to my knowledge." Audubon has the following to say in reference to Wilson's undoubtedly erroneous New Jersey records: "All my endeavors to trace it in that section of the country have failed, as have those of my friend Edward Harris, Esq., who is a native of that state, resides there, and is well acquainted with all the birds found in that district. I have never seen it out of Kentucky, and even there it is a very uncommon bird. In Philadelphia, Baltimore, New York, or further eastward or southward, in our Atlantic district, I never saw a single individual, not even in museums, private collections, or for sale in bird-stuffer's shops." Brewer remarks: "Audubon throws a doubt as to the correctness of Wilson's statement that they have been found in New Jersey, as no one else has ever met with any there. That may be, however, and Wilson's statement yet be correct. The same line of argument carried out would reject the very existence of the bird itself, as no well authenticated records of its occurring since then can be found. They are at least too doubtful to be received as unquestionable until the genuine bird can be produced." And Baird points out that the mere fact of a bird being no longer found, hardly warrants the conclusion that it never existed.

Audubon believed it bred in lower Kentucky, and Chapman, writing within the present year, is not prepared to say that it does not. "Whatever may have been the original of Wilson's *Muscicapa minuta* there can be no question that no such bird as he describes now nests, as he supposed, in New Jersey.

Of Kentucky, where Audubon secured his specimen, so positive a statement is perhaps not warranted, the recent discovery in that state of the nest of Bachman's Warbler indicating that our knowledge of its bird life is still far from complete."

Fig. 5.



Black Oystercatcher (*Hæmatopus bachmani*).
A beach nest, the eggs lying among rounded pebbles and fragments of shells, a piece of driftwood to mark the spot.
Destruction Island.

We are dependant upon the writings of Wilson and Audubon for the little we know of this bird. In all the later attempts toward dissipating the uncertainty enveloping this hypothetical species by field work, a lamentable lack of authentication is evident, and the mystery is made to appear an obvious myth. The records follow:

DATE.	LOCALITY	COLLECTOR OR OBSERVER.	AUTHORITY.	REMARKS.
"Early part of the spring, 1808."	Near Louisville, "Kentucky."	J. J. Audubon.	J. J. Audubon.	"One male shot."
"April 24," 1811.	Near Philadelphia, Penna.	Alexander Wilson.	Alexander Wilson. George Ord.	"One male shot."
"Found them in June."	"Various quarters, particularly in swamps of New Jersey."	Alexander Wilson.	Alexander Wilson.	"Several shot."
About 1830.	"Salem, Mass."	S. Pickering.	Thomas Nuttall.	"Obtained a specimen."
"On the approach of Winter."	"Massachusetts."	Thomas Nuttall.	Thomas Nuttall.	"Observed."
Between 1830 and 1840.				
"1834."				
"Fall of 1836."	"Roxbury, Mass."	T. M. Brewer.	J. A. Allen. Dr. T. M. Brewer	"One caught by cat."
About 1838.	"Berkshire Co., Mass."	Dr. Ebenezer Emmons.	W. B. O. Peabody.	"Met with."
Sometime previous to 1839.	"Ipswich, Mass."	Dr. T. M. Brewer.	W. B. O. Peabody.	"Met with."
Previous to 1839.	"Brookline, Mass."	Dr. T. M. Brewer.	W. B. O. Peabody.	"Found dead on door-step."
"June 1, 1850."	Near Racine, "Wisconsin."	P. B. Hay.	P. B. Hay.	"Specimens shot."
About 1874 or 1875.	"Wenham, Mass."	Dr. T. M. Brewer.	Dr. T. M. Brewer.	No comment.

Eight persons, all told, at various times claimed to have observed it in the flesh, and at least ten specimens alleged to have been collected; yet not a single skin is extant! Lawson claimed to have worked from Wilson's specimen, and doubtless Ord would have produced it at the rooms of the American Philosophical Society in 1840, had it been possible to do so. Of Wilson's types, all but the two now in the vaults of the Philadelphia Academy of Natural Sciences, were unfortunately destroyed many years ago by fire at the Peale Museum.

The original describer introduces his remarks with "This very rare species, the only one I ever met with, is drawn, reduced to half its size, to correspond with the rest of the figures on the same plate." And since writing the description of the type, Wilson adds that he has shot several individuals in various quarters of New Jersey, particularly in swamps. They all appear to be nearly alike in plumage. Having found them in June, there is no doubt of their breeding in that State, and probably in such situations far to the southward; for many of the southern summer birds that rarely visit Pennsylvania, are yet common in the swamps and pine woods of New Jersey. Similarity of soil and situation, of plants and trees, and consequently of fruits, seeds, insects, etc., are doubtless their inducements. The Summer Redbird, Great Carolina Wren, Pine-creeping Warbler, and many others, are rarely seen in Pennsylvania or to the northward though they are common in many parts of West Jersey." Conditions well recognized today.

Singularly enough, Wilson does not mention under the proper heading, of having found this subsequently described Pine-creeping Warbler in other than the pine woods of the Southern States. It is altogether possible that in his eagerness for new material, he failed to save the New Jersey specimens and not at all improbable that they would have all been referable to the Pine Warbler, rather than to our subject to which it bears a superficial resemblance. Audubon gives the impression of having seen a number, though stating that it is an uncommon bird; but this statement may also

be based upon error: at any rate his specimen was not saved. Of him Coues has written: "He loved warmth, color, action; he liked to exaggerate and 'embroider,' and make his page glow like a hummingbird's throat, or like one of his marvelous pictures; he had no genius for accuracy, no taste for dull, dry detail, no care for a specimen after he had drawn it." Pickering's specimen obtained many years ago was doubtless based upon erroneous identification, and Nuttall's claim to have seen the species in Massachusetts on the approach of winter is hardly worthy of serious consideration. Dr. Emmons would have to more than meet with so great a rarity before one is convinced of the correctness of his diagnosis. Hay was very evidently mistaken also, although the possession of the specimens should have warranted a full and positive statement, or correction, at some later date. Dr. Brewer was the most prolific in the matter of records, no less than four being accredited to him. In 1869 in a letter to Dr. Allen, he repudiates all but the Roxbury one. "This is the only one I ever knew or heard of. Ipswich I ignore." And Brewer himself also destroys the authenticity of this in 1874 in the following words: "In the fall of 1836, when the writer resided at Roxbury, a cat brought into the house a small Flycatcher, which was supposed to have been of this species. It was given to Mr. Audubon, who asserted to its correct identification, but afterwards made no mention of it. The presumption, therefore, is that we may have been mistaken." This last record a year later at Wenham, is given without annotation, and as he was well aware of the importance of the specimen and all the particulars appertaining to the same, and yet failed to make good; it has been received without confidence. Coues suggests the probability of some one of the small Empidonaces being mistaken for it by the later reporters; and Bonaparte in 1850 actually identified it with *Empidonax flaviventris!*

Audubon, Wilson and Ord, the leading American ornithologists of the early part of the nineteenth century, with everything in their favor excepting absolute, visible proof, claimed to have seen this bird in the flesh, and their evidence has not

been successfully controverted; while Lawson, the foremost ornithological engraver of his time, and one accustomed to, indeed must of necessity, note the minutest details in the various specimens he used in conjunction with the drawings; asserted that he had handled the skin. The combined testimony of those four reputable men, all of them specialists, accustomed to note the slightest difference in specimens, would scarcely warrant the slightest doubt of the existence of a bird answering in the main to the description of Wilson and Audubon. Audubon's figure, however, as we have it, is not from the original drawing and perhaps not even from a copy of it, for he informs us in his Ornithological Biographies that "The figure in the plate has been copied from the drawing in the possession of my excellent friend and patroness, Miss Eupemia Glifford." This information has been left out of the text of his later editions. We are not informed of the existence of the original drawing, or whether it was unfortunately destroyed by rats at Henderson with almost his entire collection, and reproduced from memory alone. His description, while to a certain extent supplementary to that of Wilson, yet coincides in many respects to the details as set forth by the latter, the conspicuous white ring surrounding the eye being the chief disagreement; and it is significant that in his Synopsis, the Pennsylvania and New Jersey records are accepted, and Wilson's measurements appropriated, without question!

Audubon claimed to have drawn his figure at Louisville, and said "I consider this Flycatcher as among the scarcest of those that visit our middle districts. * * * I have never seen it out of Kentucky, and even there it is a very uncommon bird. * * * I have more than once seen it attracted by an imitation of these notes. * * * The sound is comparatively weak, as is the case with the species above mentioned, it being stronger, however, in the Green Blackcap than in this or the Hooded species. Like these kinds, it follows its prey to some distance at times, whilst at others, it searches keenly among the leaves for its prey, but I believe never alights on the ground, not even for the purpose of drinking, which act is

performed by passing lightly over the water and sipping, as it were, the quantity it needs. All my efforts to discover its nest in the lower parts of Kentucky, where I am confident that it breeds, have proven fruitless; and I have not heard that any other person has been more successful."

The varied though not altogether satisfactory notes on its

SMALL-HEADED FLYCATCHER, *Muscicapa minuta*, Wilson.
Description—Wilson, *American Ornithology*, Vol. VI., 1812, pl. L, fig. 5, p. 62
Upper parts—"dull yellow-olive"
Wing—"dusky-brown, edged with lighter, the greater and lesser coverts tipped with white"
Tail—"dusky-brown, the two exterior feathers with a spot of white on inner vanes"
Head—"remarkably small"
Lower parts—"dirty-white, stained with dull yellow, particularly on upper parts of breast"
Beak—"broad at base, furnished with bristles and notched at tip"
Tarsus—"dark brown"
Feet—"yellowish"
Iris—"dark hazel"
Sex—"male"
Length—"five inches"
Extent—"eight and a quarter inches"
Station—"orchard"
Locality—[Pennsylvania]
Date—"April 24," [1811]
Remarks—"From what quarter of the United States or of North America it is a wanderer, I am unable to determine, having never before met with an individual of the species. Its notes and manner of breeding, are also alike unknown to me. Remarkably active, running, climbing and darting about among the opening buds and blossoms with extraordinary agility."

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habits, bespeak a much greater familiarity with the bird than the incomplete description would seem to warrant. The improbability of the only men in all our broad land at that time figuring birds capturing the only specimens of an anomalous or vanishing race, at a distance of many hundred

miles, is of course, very great indeed. What was long considered to have been an almost parallel instance,—the Blue Mountain Warbler, *Sylvia montana=Dendroica montana* of Wilson, was taken in the Blue mountains of Pennsylvania. The description of this species was so faithful that the writer of this paper, while in the pinfeather stage, with no other

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SMALL-HEADED FLYCATCHER, *Wilsonia microcephala*, Ridgway. Audubon, *Birds of Am.*, Vol. III., 1838, pl. 434, fig. 3.*Orn. Biog.*, Vol. V., 1839, p. 291

"general color light greenish-brown"

"short, the second quill longest, dark olive, two bands of dull white"

"moderate length, even; outer feathers with a terminal white spot on inner web"

"greenish-yellow, narrow white ring surrounding the eye"

"pale yellow, gradually fading into white behind"

"male"

"margins of a pond"

"Kentucky"

"early part of the spring, 1808"

"Migratory, fond of low thick coverts, whether in the interior of swamp, only the margins of sluggish pools, from which it removes to higher situations after a continuation of wet weather to rolling grounds amid wood comparatively free of undergrowth. Song pleasing in this, which may be heard at a distance of 40 or 50 yards in clear weather. While chasing insects on the wing, although it clicks it bill, the sound is comparatively weak, at other times it searches among the leaves."

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work obtainable, was led to label an immature Black-throated Green Warbler thus, and Audubon's example came from California, loaned to him by the Zoological Society of London. Ridgway has recently referred Wilson's bird to *Dendroica virens* and Audubon's to *D. townsendii*. It has been written

that among the disproportionately large number of new species described by Wilson there are but two only remaining unidentified. This is now reduced to the one under present consideration. The lost species of Audubon are the Carbonated Warbler, *Dendroica carbonata*, and Cuvier's Kinglet, *Regulus cuvierii*, neither of which have since been found, but being hybrids presumably, may reoccur sooner or later; though perhaps we should not take them too seriously. Townsend's Bunting, *Spiza townsendii*, taken by Dr. Ezra Michener in Chester county, Pa., on the contrary is preserved to this time and remains unique.

While probably little effort has been made since the time of Audubon, to solve the mystery by careful search for the lost species in the so-called feud belt and really little worked regions of Kentucky; yet it must be admitted that were there the remotest chance of success, some of our most enterprising private collectors as well as corps from public museums, would have raked that section with fine-tooth combs, figuratively speaking.

Reverting once more to the dispute, it is evident that neither Audubon, nor Ord and Lawson were unprejudiced. Just how little or how much it figured in their testimony, it is impossible to determine. Had the charge appeared during the life of Bartram, to whom Wilson imparted his discoveries and with whom he resided sometime previous to the publication of this drawing, a perfectly unbiased statement might have been possible.

At this late date no eventuality, excepting only indisputable documentary evidence, can prove beyond all doubt the falsity or blameworthiness of one or the other; and as the matter stands, Audubon's tardy unproven accusation of piracy, the publication of which adds no lustre to his name, but rather detracts therefrom, should be discredited, expurgated, forgotten; and the memory of the also intensely human "Father of American Ornithology" be unsullied by an ungenerous suspicion, born of personal incompatibility, rather than the accidental difference in birth.

A resume of the earnest efforts looking to a satisfactory

cataloging of this bird is but a paragraph in the history of that spasmodic, prolonged and, for the most part, sincere striving to bring order out of chaos. Wilson labeled it *Muscicapa minuta*, identifying it with an old and very elastic group which not only contained our true Flycatchers, but the Vireos, Blue-gray Gnatcatcher, American Redstart, Canadian and Wilson's Black-capped Warbler. This disposition was acceptable to Ord, Jardine, Nuttall (1832), Audubon, Peabody, Putnam, Minot, and used by Townsend as late as 1904. Bonaparte, however, as early as 1824, calls attention to Wilson's mistake in classifying this bird: "A new species of Wilson, omitted in the index. We have not seen it, but judging from the too much reduced figure, we rather think it is a *Sylvia*.. The specific name is preoccupied in *Muscicapa*, and also in *Sylvia*, Wilson having applied it to one of his new Warblers; but as I have discovered that his *S. minuta* (Prairie Warbler) is the *S. discolor* of Vieillot, his specific name for this species, if it be a *Sylvia*, may be retained." In 1831, Jamison seems inclined to follow Bonaparte's suggestion of *Sylvia minuta*, and in 1837 Richardson lists it as *Setophaga minuta*, and is followed by Hoy and Gray. But Bonaparte proposes *Wilsonia minuta* in 1838, and Nuttall in his second edition, published in 1840, calls it the Small-headed Sylvian Flycatcher, *Sylvania pumilia*, not only quoting Wilson and Audubon on *M. minuta*, but Vieillot on *S. pumilia*, very evidently confusing species not identical and neither one referable to any known species to this day. This stood until 1858, when Baird writes it *?Myiodioctes minutus*, rejecting Bonaparte's *Wilsonia* on the score of preoccupation in botany, and placing it in a genus proposed by Audubon for the Canadian, Hooded and Wilson's Warblers, with the following comments: "It seems to be a perfectly distinct species from any other I have described, and evidently belongs to the *Oscines* rather than the *Tyrannulas* (*Clamatores*). * * * The white spots on the tail distinguished it readily from any of our true tyrant flycatchers. The introduction of the bird into the genus *Myiodioctes* is purely conjectural, although its affinities seem nearest to the Hooded Warbler." Baird is consistent in the

use of this name in 1859, 1865 and 1874, and is followed by Trumbull, Brewer in 1875, Ridgway in 1881, Maynard and Sharp. Coues hovers uncertainly between *Muscicapa* or *Myiodioctes 'minuta'* in 1868 and *Myiodioctes? minutus* in 1878. Allen follows Bonaparte's *Wilsonia minuta* in 1861, 1869 and 1870, but reverts to *Myiodioctes* in 1878. Coues retained *Muscicapa minuta* in 1872, remarking that it is conjectured to belong to the genus *Myiodioctes*, but asserting that this can hardly be, two white wing bands being a character not shown in that genus; and rejects *Wilsonia* because preoccupied in botany and also used in entomology. He accepts *Myiodioctes* in 1878, however; but in April, 1880, declares, "If the use of a genus name in botany does not preclude its acceptance in zoology, *Wilsonia* should replace *Myiodioctes* Aud.," and he apparently decides that it does not, for he uses it three years later in New England Bird life, in fact he had already used it in the first edition of that work in 1873; and Ridgway had clearly set his stamp of approval on the name in his catalogue issued the same year as the question was raised by Coues. Stejneger in 1884 concurs: "If the name *Wilsonia* (Bonaparte, 1838) cannot be rejected, because preoccupied in botany, it will have to take precedence of *Myiodioctes* Aud. 1839." Heretofore the controversy has been chiefly on the generic name, but in 1885 Ridgway substituted the specific name *Microcephala* for that of Baird's *minutus*, the latter proving to be preoccupied, and reviving Nuttall's genus *Sylvania;* and in the Hypothetical List of the first two editions of the A. O. U. Check-List, issued in 1886 and 1895, a tentative indorsement of Ridgway's proposition is given in *Sylvania? microcephala.*

Chamberlain in 1891 and Ridgway in 1896 repeating, Coues comments upon this in the Untenability of the Genus *Sylvania* Nutt., in the *Auk* for April, 1897, and effectually disposes of the name: "My tacit acquiescence in our use of *Sylvania* has hitherto been simply because I had no special occasion to notice the matter, and presumed that our committee had found the name tenable by our rules. But a glance at Nuttall's Man., I, 1832, p. 290, where the name is

introduced, shows that it can have no standing, being merely a new designation of *Setophaga* Sw. 1827, and therefore a strict synonym. Nuttall formally and expressly gives it as such, making it a sub-genus (of Muscicapa) in the following terms: 'Sub-genus Sylvania. (Genus Setophaga Swainson). This is enough to kill it—say rather, the name is still-born; and why we ever undertook to resuscitate it passes my understanding. * * * *Sylvania* must be dropped and our choice of a name for the genus lies between *Wilsonia* Bp., 1838, and *Myiodioctes*, Aud., 1839. Use of *Wilsonia* in botany does not debar it in zoology, and if it is not otherwise preoccupied it must stand." Soon after its rejection by Baird in 1858 on the ground of botanical preoccupation, it was used by Dr. Allen in Proc. Essex Inst., IV. 1864, p. 64, and in various other places in succeeding years. * * * The Ninth Supplement to the A. O. U. Check List of North American Birds, issued in January, 1899, abandons the *Sylvania* of Nuttall for the *Wilsonia* of Bonaparte, first published in his Geographical and Comparative List, 1838, and the technical name of the rechristened Small-headed Warbler is now officially known as *Wilsonia microcephala* Ridgw., after almost three-quarters of a century participation in the home-made tangle.

REFERENCES.

1812. Wilson, Alexander. American Ornithology. VI. *Muscicapa minuta*, p. 62. pl. L. fig. 5. (Original figure and description. No change in Ord's reprint of 1824.)

1815. Ord, G. Zoology of North America, Guthrie's Geography, 2nd Am. ed. *M[uscicapa] minuta*, p. 317. Not seen in the original, quoted from reprint, 1894, by Samuel N. Rhoads.)

1824. Bonaparte, Charles. Observations on the Nomenclature of Wilson's Ornithology. *Jour. Acad. Nat. Sci. Phila.*, IV. *M[uscicapa] minuta—Sylvia minuta?* p. 62.

1831. Jamison, Robert. Wilson and Bonaparte's American Ornithology, I. *Sylvia minuta*, p. 162.

1832. Jardine, Sir William. Wilson, Bonaparte and Jardine's American Ornithology, I. *Muscicapa minuta*, p. 269.

1832. Nuttall, Thomas. Manual of Ornithology of the United States and Canada, 1. *Muscicapa minuta*, pp. 296-297.

1837. Richardson, John, M.D. Report on North American Zoology. *Report of the Sixth Meeting of the British Assoc. for Adv. of Science for 1836, Setophaga minuta*, p. 172.

1838. Audubon, John James. The Birds of America, III, pl. 434, fig. 3. (No text.)

1838. Bonaparte, Charles Lucian. Geographical and Comparative List of the Birds of Europe and North America. *Wilsonia minuta*, p. 23. ("Southern and central parts.")

1839. Audubon, John James. Ornithological Biographies, V. *Muscicapa minuta*, p. 291.

1839. Audubon, John James. Synopsis of the Birds of North America. *Muscicapa minuta*, p. 14. ("Kentucky, Pennsylvania, and New Jersey. Exceedingly rare. Migratory.")

1839. Peabody, William B. O. Reports on the Fishes, Reptiles, and Birds of Massachusetts. *Zoological and Botanical Survey of the State. Muscicapa minuta*, p. 296. (Not seen, said to contain reference to Dr. Emmon's Berkshire Co., Mass., record, *cf. Ulke, 1869.*)

1840. Audubon, John James. Birds of America, I, pl. 67, *Muscicapa minuta*, p. 238.

1840. Nuttall, Thomas. Manual of Ornithology of the United States and Canada, 2nd ed. I. *Sylvania pumilia*, p. 334.

1840. Peabody, Rev. W. B. O. A Report on the Birds of Massachusetts made to the Legislature in Session of 1838-9. *Boston Journal of Natural History*, III, p. 119. (Reprint of previous report. Does not contain Dr. Emmons' record.)

1852. Brewer, T. M. Wilson's American Ornithology, with Additions, including the Birds Described by Audubon, Bonaparte, Nuttall and Richardson. *Muscicapa minuta*, p. 113. Synopsis, p. 690.

1853. Hoy, P. R., of Racine, Wis. Notes on the Ornithology of Wisconsin. *Proc. Acad. Nat. Sci. Phila.*, VI, 1852, 1853. *Setophaga minuta*, Wilson, p. 309. Also same in *Trans. Wisconsin State Agri. Soc.* 1853, p. 346.
("Rarely met with. The only specimens I have, were shot 1st of June, 1850.")

1856. Putnam, F. W. Catalogue of the Birds of Essex Co., Mass., *Proc. Essex Inst.*, I. *Muscicapa minuta*, p. 226. (Listed under the head of accidental visitants.)

1858. Baird, Spencer F. Coöperation of Cassin, John, and Lawrence, George N. Report of (Pacific Railroad) Explorations and Survey, 1853-6, IX, Birds. *?Myiodioctes minutus*, p. 293.

1859. Baird, Spencer F. Catalogue of North American Birds chiefly in the Museum of the Smithsonian Institute. *Smithsonian Miscellaneous Collections. ?Myiodioctes minutus*, No. 212.

1864. Allen, J. A. Catalogue of the Birds of Springfield, Mass., *Proc. Essex Inst.* IV. *Wilsonia minuta* Bon. p. 83. ("This little known and rather doubtful species is said to occur in this State.")

1865. Baird, S. F. Review of American Birds, *Smithsonian Miscellaneous Collections*, Part I. *Myiodioctes minutus*, p. 241. ("Hab. Eastern U. S. This species continues to be unknown to modern ornithologists, no specimens being recorded as extant in collections.")

1868. Coues, Dr. Elliott, U. S. A. Catalogue of the Birds of North America contained in the Museum of the Essex Institute; with which is incorporated a List of the Birds of New England, with brief Critical and Field Notes. *Proc. Essex Inst.* V. *Muscicapa or Myiodioctes "minuta,"* p. 275.

1869. Allen, J. A. Notes on Some of the Rarer Birds of Massachusetts. *The American Naturalist*, III. *Wilsonia minuta*, Bon. p. 577. ("This rather apocryphal species is given by Peabody as having been met with at Ipswich by Dr. Brewer, and in Berkshire County by Dr. Emmons. Dr. Brewer writes me that in 1834 his cat caught a specimen of this species in Roxbury, which he sent to Audubon, though as Dr. Brewer observes, he (Audubon) makes no mention of it." Cf. Brewer in History of N. A. Birds, compare dates.

1869. Gray, G. R. Hand List of Generia and Species of Birds, Part 1. [*Sctophaga*] *minuta*, p. 244. ("E. of U. States."

1869. Turnbull, William P. Birds of Eastern Pennsylvania and New Jersey. *Myiodioctes minutus*, p. 53. Philadelphia ed., p. 42.

1872. Coues, Elliott. Key to North American Birds, *Muscicapa minuta*, pp. 109-110.

1873. Stearns, Winfried A., and Coues, Elliott. New England Bird Life, I. *Wilsonia minuta*, p. 173. Same in 2nd ed. 1883. ("The name has been dropped out of the recent lists, and should not be restored without good authority." Coues in foot-note.)

1874. Baird S. F., Brewer, T. M., and Ridgway, R. A History of North American Birds, I, *Myiodioctes minutes*, p. 316, pl. 16, f. 2. (Same in reprint, 1905.)

1875. Brewer, T. M. Catalogue of the Birds of New England, with brief notes indicating the manner and character of their presence; with a list of species included in previous catalogues believed to have been wrongly classed as Birds of New England, *Proc. Boston Soc. Nat. Hist.* XVII, 1874-1875. **Myiodioctes minutus.* Baird, p. 440. "Wenham, Mass." (*Denotes "accidental, very local, or those known to have occurred only in a single instance.")

1877. Minot, H. D. The Land-Birds and Game-Birds of New England. *Muscicapa minuta*, p. 129. ("An entirely apocryphal species". footnote.)

1878. Allen, J. A. A List of the Birds of Massachusetts, with Annotations. *Bul. Essex Inst.*, X. *Myiodioctes minuta*, p. 75. ("I agree with Dr. Coues that the species is one hardly entitled to recognition, and I prefer to discard it, for the present, as a bird of Mass.")

1878. Coues, Elliott. Birds of Colorado Valley, Part First. Miscellaneous Publications, No. 11, *Dept. of the Interior, U. S. Geo. Survey of the Territories. Myiodioctes? minutus*, p. 326.

1880. Coues, Dr. Elliott, U. S. A. Notes and Queries Concerning the Nomenclature of North American Birds. *Bul. Nuttall Orn. Club*, V, Apr. p. 95. ("If the use of a generic name in botany does not preclude its acceptance in zoology, *Wilsonia* should replace *Myiodioctes*, And.")

1880. Ridgway, Robert. Catalogue. *Proc. U. S. Nat. Mus., III. Wilsonia minuta*, p. 174, Appendix, p. 231.

1881. Ridgway, Robert. Nomenclature of North American Birds. *Proc. U. S. Nat. Mus.*, III. *Myiodioctes minutus* (Wils.) Baird, No. 126, p. 19.

1882. Maynard, C. J. Birds of Eastern North America. *Myiodioctes minutus*, p. 521. ("Extinct species.")

1884. Stejneger, Leonard. Analectic Ornithologica. *Auk*, I, p. 231. (*Cf. Coues*, 1880.)

1885. Ridgway, Robert. Some Emended Names of North American Birds. *Proc. U. S. Nat. Mus.* VIII, Sep. 2. *Sylvania microcephala*, p. 354.

1885. Sharp, Dr. R. Bowdler. Catalogue of the Birds of the British Museum, X. *Myiodioctes minutus*,, p. 431, footnote.

1886. A. O. U. Check-List of North American Birds. *Sylvania*(?) *microcephala*, p. 357. (Second ed. 1888, p. 333 Hypothetical List.)

1888. Ridgway, Robert. Manual of North American Birds. *S[ylvania] microcephala*, Small-headed Warbler, p. 527. (No change in 2nd ed. 1896.)

1891. Chamberlain, Montague. Nuttall's Popular Handbook of the Ornithology of Eastern North America, I. *Sylvania microcephala*, p. 265.

1897. Coues, Elliott. Untenability of the Genus *Sylvania* Nutt., *Auk*, XIV, Apr., pp. 223-224.

1899. A. O. U. Ninth Supplement to Check-List. *Auk*, XVI, Jan., p. 123. (Genus *Sylvania* Nuttall, becomes *Wilsonia* Bonaparte, The first being a strict synonym of *Setophaga* Swainson. *Cf. Coues*, 1897.)

1902. Coues, Elliott. Key to North American Birds, II. *Wilsonia microcephala*, pp. 223-224.

1902. Ridgway, Robert. Birds of North and Middle America, II. *Wilsonia microcephala* Ridgway. ("Pennsylvania and New Jersey; also, according to Audubon, Kentucky.")

1904. Townsend, Charles Wendall, M.D. The Birds of Essex County, Mass. *Memoirs of the Nuttall Orn. Club*, No. III, *Muscicapa minuta*, p. 318. ("Brewer at Wenham.")

1907. Chapman, Frank M. Warblers of North America, Hypothetical List, *Wilsonia microcephala* (Ridg.), pp. 299-300.

1908. Trotter, Spencer. Type Birds of Eastern Pennsylvania and New Jersey. *Cassinia*, XI. 1907, *Muscicapa minuta* (Wils.), p. 25. ("This species, not since detected and the basis of Audubon's attack on Wilson and Ord's counter charge, is stated by the latter to have been secured by Wilson near Philadelphia.")

THE BIRDS OF POINT PELEE.

BY P. A. TAVERNER AND B. H. SWALES.

(Continued from Vol. XIX, p. 153.)

142.† **Piranga erythromelas*.—Scarlet Tanager.

We have found the Scarlet Tanager common on all May visits. In the fall it has not been as numerous as the abundance of other species would lead us to anticipate. From September 4 to 15, 1905, we saw but five, all on the 5th. The next year one was seen September 1 and none on the succeeding visit in the middle of the same month. However, on October 14 three were secured or taken. In 1907 from August 26 to September 2 one or two were noted each day. In all probability it is a more or less common summer resident.

143. **Progne subis*.—Purple Martin.

The Purple Martin has always been present on the occasions of our May trips about the streets of Leamington, where a colony or colonies continue to hold out. Swales, in his trip from May 1 to 4, 1908, discovered from ten to several there, while at the same time they had not arrived in any numbers in Detroit. Our fall dates have usually been a little late for this species, which usually leaves these localities before the end of August.

In the fall of 1905 Lynds Jones' work among the outlying islands

†Owing to a mistake of the writer, the numbering of some of the last species in the previous installment of this list is incorrect. This is the proper number of this species in its sequence in the list.
P. A. T.

drew to a close just about the time when we first installed ourselves on the Point, September 4. In regard to this species, he says:

"Crossed in great numbers from Pelee Island via Middle and Kelly's to Marblehead, during my stay on Pelee Island."

The species had practically gone when we arrived as we saw but five stragglers sailing southward over the marsh on the 5th.

In 1906, no fall birds were noted, but the following year, August 24, the flight had not yet passed, though from the reports of the residents, it was then considerably diminished in numbers. One was seen the day of our arrival, but none the next. On the 26th 18 were noted. That night the steadily blowing wind that had so far succeeded in keeping the mosquito pests in the dense bush, died down and they sallied forth to our camp hungry after a three-days' fast. Mosquito netting was but a slight impediment to their flight; dope but made them mad, and smudge smoke goaded them to frenzy and but added vigor to their attack. We lay on the beach, close to the water's edge, wrapped in our blankets until we nearly smothered. We sat in the smoke of the fire until our eyes ran, and in desperation three of us gathered up our field traps in the dark and started out towards the end of the Point. We arrived there just as the first faint tint of gray was showing on the eastern horizon and climbed to the top of the tower that has been before mentioned, in the hope that the mosquito pests would not ascend to that altitude. Though we were disappointed in this, there were compensations that really amply repaid us for all our night of trouble and the long tramp out in the dark.

The day broke grey and cloudy. At first there was silence, broken only by the sharp monotone of our little tormentors, the water lapping the shore, or the rude, harsh sounds of our noisy feet upon the wooden floor. Then an occasional bird note cut sharp and clear through the surrounding gloom as a Wood Pewee or a Chipping Sparrow awoke. It grew lighter, and the nearby red cedars stood solidly out from the misty background, and a few little peeps came down from high overhead, warning us that either the night migrations were not yet over or that those of the morning were just begun. As it became lighter and the mist became slightly luminous, we were aware of occasional shadows passing swiftly by us, but so dim and evanescent as to be felt rather than seen. There was no sunrise, but, as the landscape grew brighter, the species of the passers-by could be made out with some degree of certainty; and the bird notes came up to us rather oftener as bird after bird awakened and added its quota to the Martin chorus. The passing birds, few at first, increased in numbers. Bank Swallows passed swiftly by and a few Rough-wings, but most of them were Barn Swallows that came along in widely scattered groups of five or six; climbing up invisible aerial wave slopes, pausing a moment at the top, and then coasting

down the other side in long easy curves, with a swinging turn now to this side and now to that as if deflected by easily avoidable obstacles, invisible to us. Once in a while a Chimney Swift came busily by on rapidly beating wings like a great sphinx moth. All were making southward and away over the lake.

After it had been light for about half an hour, an occasional Martin appeared on the landward horizon, grew in apparent size, until by the refraction of the morning mists it seemed as large as a small hawk, passed us, and was swallowed up in the fog over the water on the farther side. They came oftener and oftener, until there was a steady stream of them coming down the Point, not in regularly organized flocks, but singly, and in ones and twos and half dozens. Standing there in the early morning half light it was most impressive. The mist lay below us and covered the ground with soft diaphanous billows. Through it the sharp conical red cedars pushed up half their length, sharp and clear cut in the foreground, but growing dimmer in the distance until they melted away into the vague horizon. The sky was leaden in color. Through the mist came the Martins. We were elevated to their plane of flight and were alone with them. On they came, bird after bird, on their strong bowed wings, out of the nebulous north, cutting strong and black against the neutral background. Without hurry or haste, calm, dignified and determined, they held a true course and swerved neither to one side or the other. With no apparent concerted action, but as if each one was filled with a like but independent impulse of migration and was urged on and on, south, ever south, by an inward monitor that ruled supreme.

It was only a flight of migrating Martins, and tame enough in the telling, but the reality was impressive indeed. The empty grayness of the vacant landscape and the succession of impassionate birds, all hastening under a mysterious impulse from a region of unknown extent to the north and converging to this one little spit of sand projecting out into the waters, on their way to a softer climate, in anticipation of colder times as yet in the future. It gave the impression of a never-ending procession passing from one unknown to another. Summer was past, winter was coming, the season was advancing and could be no more retarded than the order of the stars could be altered. Word had gone forth and had been received by each and every individual. No Fiery Cross was necessary—Nature had willed it, and that was sufficient, the clans obeyed and it had come to pass. Imagination reached forth and saw them gathering from the whole mysterious northland. Some were working down the rugged shores of Georgian Bay, passing from headland to headland or island to island; others passing over the scorched sand plains of northern Michigan, and all were headed in the same general direction and, with the same deliberate, steady and unhurried flight, the migrations were proceeding as inevitably as fate.

We watched them for some time, then, after collecting a few almost as fast as we could load and fire, returned to camp for breakfast. All day long when we looked up we could see the same steady stream making south over the land, while during the warmer parts of the day, the higher region of the air was filled with them, one above the other as high as the eye could reach, circling about hither and thither, preparatory to proceeding. A hundred birds could be so counted during most of the day; but this could not have been the culmination of the migration, for we were informed that the day previous to that of our arrival, on the 23d, one of the residents killed seventeen at one shot. This must have been a great flock, and we saw nothing like it during our stay.

After this we saw but occasional Martins each day until September 5, when another smaller flight occurred. At this time we counted them at the end of the Point, and they passed over at about the rate of ten every fifteen minutes. From our station at camp we judged that they continued at about the same rate all day. During the previous flight there were double this number passing, and perhaps treble would be closer to the mark. The former flight was composed mostly of adults of both sexes with a few juvenile males. The latter were all females, a few adult. No males at all were seen during our period of observation at the end of the Point when nearly all passed close enough to us to make this point practically certain.

The first flight was undertaken in a light breeze blowing from the south, but the latter was in the teeth of a good brisk wind, bathing the whole beach with a line of white breakers extending for some distance from shore. In spite of this the martins and swallows sailed steadily out to sea without a moment's hesitation or appearing even to notice the stress. At the same time we noticed other species, notably Cedarbirds, essay the passage, but after thorough testing of conditions, concluded it too strenuous and returned for more favorable times.

From statements made by several of the residents living in the vicinity of the lower part of the Point the spring flight of the martins about the middle of April, 1907, must have been even more extensive than the fall flight. They relate how the birds, overtaken by the cold, raw weather that prevailed, clustered in immense numbers at night in all available out-houses, where they covered every possible perching place, completely lining the walls, floors, etc., especially in a deserted barn. We have not been fortunate enough to be present on the Point during the period of the spring flight.

111. *Petrochelidon lunifrons.*—Cliff Swallow.

Though never very common we have found a limited number of Cliff Swallows on most of our seasonable visits. Several seen May 13, 1905. Two September 11 of the same year in company with a

mixed flock of Barn and Bank Swallows. Several May 20, 1906, and about five September 1, 1906, on the telegraph wires at the base of the Point. None noted the May-June trip of the following year, but from August 24th to the 31st, from two to ten were seen each day, but none in September. Not noted May 1-4, 1908, when Wallace and Swales made a trip. This is by no means an abundant species in this section. Its reddish tan rump makes a conspicuous and certain field mark when the bird is in flight.

145. **Hirundo erythrogastra*.—Barn Sawllow.

A common summer resident. Common on all May dates. In 1905 the last were noted September 5, when considerable numbers were seen. In 1908 they were common the first three days of September, and about twenty-five were noted the 15th, and about ten the 19th. In 1907 they were still common and migrating heavily up to the time of our leaving, September 6.

146. **Iridoprocne bicolor*.—Tree Swallow.

The Tree Swallow we have found practically common on all May dates. In the fall it has never been abundant. In September, 1905, a few were noted daily from the 4th to 11th, on which latter date several flocks were observed passing over. September 18, 1906, three were seen, making our only record for the locality that season. In 1907 from one to eighteen were noted from August 24th to the 30th, and no more after that. There has been a considerable diminution in the abundance of the fall flocks of this species in this section of late years.

147. **Riparia riparia*.—Bank Swallow.

Common on all May visits. In 1905 the last fall flock was noted September 11. In 1906, common the first three days of September, and not seen during our return visit in the middle of the month. In 1907, great numbers were seen the latter end of August from the 24th, irregularly diminishing to the time of our departure, September 6, when but several were noted. A few seen May 2, 1908.

148. **Stelgidopteryx serripennis*.—Rough-winged Swallow.

One of the many interesting events of our fall trip of 1907 was the number of Rough-wings seen migrating from August 24 to September 2. They were generally mixed in with large flocks of Bank Swallows, and nearly every time we closely scrutinized the latter we found numbers of the former among them. We counted and estimated the number of Rough-wings seen on these various days as 20, 100, 15, 4, 2 and 10. If the same proportion of this species existed in all the flocks of Bank Swallows the number of this usually rare species that passed over the Point must have been very great.

We found by repeated trials, verified by the capture of specimens, that careful attention could always separate the two species, whenever the conditions of observation were at all favorable. A closely discriminating eye can tell them by the difference in flight, as Saunders several times demonstrated. To the less acute, the soft brownish suffusion over the throat and breast of the Rough-wing, instead of the sharply defined breast bar of the Bank and the slightly more reddish cast (more appreciable in life than in museum specimens) are quite sufficient to separate the two species. The slightly superior size of *serripennis*, though sometimes quite apparent, is not always sufficiently marked for ready recognition.

Though quite a number were taken, all were juveniles and without the characteristic roughness on the primaries that gives them their distinctive name. Seemingly, this peculiar feather specialization is only acquired with age, and we have spring birds that are entirely without it and others on which it is but slightly marked. Swales saw several May 2, 1908, in company with numbers of Barn Swallows.

149. **Ampelis cedrorum*.—Cedar Waxwing.

Common on nearly all visits except those of October in 1905 and 1906. It seems also to be present during the winter in considerable numbers, and Gardner reported them at various times during the winter of 1906-7 and 1907-8. We saw large flocks March 9-10, 1907. September 5, 1907, we saw a flock start out over the lake with the evident intention of crossing, but the stiff south wind proved too strong for them and they returned. Very common May 1-3, in large flocks, distributed all over the Point.

HYPOTHETICAL.

Lanius borealis.—Northern Shrike.

Though this species undoubtedly occurs, we list it "hypothetical" for the sake of consistency as we have no absolutely authentic record of its occurrence. Gardner, on being shown a Migrant Shrike, reported having seen, in the winter, birds like it but larger.

150. **Lanius ludovicianus migrans*.—Migrant Shrike.

Of late years we have found this species almost scarce about Detroit, nor has it been common on the Point. From August 24 to September 6, 1907, we noted single individuals several times; once near Sturgeon Creek, at the Base, again about half way out, in the vicinity of some old hennery building; and on two or three occasions, in the deserted fields near the end of the Point. September 6, 1907, a juvenile was brought to us by one of the residents. We have seen them on no other occasions.

151. **Vireo olivaceus.*—Red-eyed Vireo.

Practically common on all seasonable visits. They were not yet present May 1-4, 1908, but have been observed on all other May dates. In September, 1905, they were common until the 8th, then one was seen the 11th, and no more up to the date of our departure, the 15th. In September, 1906, they were numerous during our visit the first three days of the month, but on our return the 15th, there were none noted until the 17th, when from one to four were seen each day to our departure. Some remained well into October, and several were noted the 14th of that month. From August 24th to September 6th, 1907, they were seen every day, their numbers culminating the 20th. The next day but one was observed, and from then on to the day of our departure but scattered individuals were seen.

152. **Vireo philadelphicus.*—Philadelphia Vireo.

Apparently a regular and not uncommon spring and fall migrant, although we never observed it on the Point until September 1, 1906, when a male was secured and one again on each of the two succeeding days. On the return visit, the same month, two or three were seen or secured each day from the 17th to the 21st. The following spring, 1907, five were observed May 31 and four the next day. None were recognized during the fall trip of August 24-September 6, 1907. On this last occasion, however, all the early fall migrations were over a week late and consequently the great probability is that they had not yet arrived. In the fall the Philadelphia Vireo can be distinguished, under favorable circumstances, with no great difficulty, owing to the comparatively bright yellow underparts that serves at once to distinguish it from either the Red-eyed or Warbling Vireos with which it is apt to be confused. In the spring its likeness to the Warbling is most confusing, and then even an experienced eye should be aided by the ear. Of course with the bird in the hand, the absence of the rudimentary or "bastard" first primary is always an easy and conclusive test of the Philadelphia.

153. **Vireo gilvus.*—Warbling Vireo.

The Warbling Vireo has always been a common bird along the western or wooded sections of the Point on all May visits, except those of May 1-4, 1904, and May 31-June 1, 1907. From this latter date we argue that it is not a common summer resident. Our only fall date is September 3, 1906, when a few were noted. This Vireo rarely lingers in this section after the first of September.

154. *Vireo flavifrons.*—Yellow-throated Vireo.

Though a common summer resident and still more numerous migrant in the Detroit vicinity, strangely enough, it seems to be a rare bird on the Point. Our few records are not thoroughly satisfactory,

having been but cursory sight identifications made by various members of our parties under not very favorable conditions, and unaware of the scarcity of the species in this particular locality. May 14, 1905, we listed three. September 1-2, 1906, several, and August 29, 1907, one.

155. **Vireo solitarius.*—Blue-headed Vireo.

May 14, 1905, this was a common bird on the Point and we were seldom out of sight or hearing of one or more during our whole tramp from the camp to the base of the Point. That fall one was taken September 13, which was likely the first of the migrants. The next year (1906) we noted none in May; the 20-21st being rather late for them in a normal year. That fall (1906) one and two were detected September 18 and 19. The spring of 1907 being phenomenally late, one bird was seen May 31 and another June 1. For the fall migrations of that year we have but one date and one individual, August 31, which is, according to our experience, unusually early. The white eye ring and loral stripe, standing out from the clear gray of the head, make a field recognition mark not easy to mistake.

156. **Mniotilta varia.*—Black and White Warbler.

May 14, 1905, a practically normal spring, but two were noted. The following year, May 20-21, was too late for them and none were observed, but the spring of 1907, which was remarkable for its lateness, we saw five, May 31. A few were noted May 3 and 4, 1908. It has been present and more or less common during all our fall dates, except those of October. In 1905, a few were seen from September 1 to 8, after which none were observed until the 13th, when a large flight arrived, and they were common for the day, but left that night and but three were noted the next morning. In 1906 nothing worthy of note was observed either in number or fluctuations of number during our two trips to the Point, though they were considerably more numerous on the first than on the later visits. They were already present on our arrival August 24, 1907, and remained in fairly constant numbers until we left, September 6.

157. **Helminthophila pinus.*—Blue-winged Warbler.

September 2, 1906, Taverner had the pleasure not only of adding this species to the Pelee list, but of making a primal record for the Dominion when he took a juvenile of indeterminate sex in a grape vine tangle near the east shore at the end of the Cross Road. The specimen is numbered No. 662 in his collection. The next day he shot what he thought was another, but was unable to find it in the dense shrubbery.

158. *Helminthophila chrysoptera.*—Golden-winged Warbler.

This is another species common all summer in the Detroit vicinity, but rather rare on the Point. Fortunately, though no specimens have been taken, they have been seen under circumstances that make identification certain. May 21, 1906, one was noted. August 31, 1907, another was seen by Taverner near camp, and September 2 the same observer noted one along the east shore in the vicinity of the Cross Road.

159. **Helminthophila rubricapilla.*—Nashville Warbler.

Likely a more or less common and a regular migrant, though our records for the species are few and more or less scattered. One May 13, 1905, and three September 6 of the same year. The next fall five, one, eight, six and one were enumerated September 1, 18, 19, 20 and 21, but none on the spring trip of May 20-21. One was noted May 31, 1907, among the late warblers of that abnormal spring, but up to the time of our departure in the fall, September 6, they had not put in an appearance. The spring of 1908, Swales noted one each day, May 2 and 3.

160. **Helminthophila peregrina.*—Tennessee Warbler.

A regular and not uncommon migrant, spring and fall. Ten noted May 14, 1905, May 20-21, 1906, which is normally late for them, none were seen, but May 31 and June 1, 1907, when so many late warbler records were made, two rather questionable birds were noted. None were listed May 1-4, 1908.

In the fall it is one of the earliest warblers to arrive. On August 26, 1907, one was taken; an arrival date that seems about normal, as we can closely parallel it with Detroit dates. We saw but one other this season, on the 29th. The preceding year they were still present in some numbers the first three days of September, and in full song. One was noted September 4, 1905, and another the 14th. The species remains quite late and we have a record of an individual, October 14, 1906.

161. **Compsothlypis americana usnea.*—Northern Parula Warbler.

Conversely to the cases of the Golden-winged Warbler and the Yellow-throated Vireo, cited before, this species seems to be a rather common migrant on the Point, at least in spring, while it is very rare at Detroit at all seasons. May 14, 1905, which is our only spring date strictly within its regular migrational season, we found it very common the whole length of the western wooded shore. None were observed May 20-21, 1906, but in the abnormally late spring of 1907 we saw one May 20, and three June 1. The fall of the same year one was taken August 28, giving us our only fall date.

162. **Dendroica tigrina.*—Cape May Warbler.

This species, long classed as one of the rarest of the warblers, has proved itself during our work at the Point to warrant a hardly less strict term than scarce and, at times, has been almost common. We have never detected its presence in spring, but that is likely because the dates of our spring work on the Point have never fallen within those of the height of the warbler migrations. In 1905, three were taken September 8, and ten seen or taken the 13th, in the red cedar thickets near the end of the Point and the presence of more strongly suspected. In 1906, two were taken or observed September 17, and an equal number the next day. In 1907, from one to four were noted or captured each day from August 29 to September 2. Among the specimens so gathered, we obtained an almost complete series of fall plumages—from the young of the year to adults of both sexes. In life there is something peculiarly characteristic in the appearance of a faint, hidden copper spot that can only be distinguished in some juvenile females on parting the feathers, but is present in all specimens so far examined.

163. **Dendroica æstiva.*—Yellow Warbler.

Common on all May visits except that of 1908, when but two were observed on the 3d. The season, however, was very late, the weather inclement and all warblers were behind in their appearance. The Yellow Warbler is one of the earliest warblers to depart in fall, and consequently we have, until 1907, been late for it on our autumn trips. About Detroit it is not common to see them after the first of August, and often the last ones are observed about the middle of July. However, from August 24 to 29, we saw one or two each day, and once as many as six, then no more were noted until September 2, when the last two were noted. Several times in May we have found a number of peculiar, unmarked and much worn green plumages among them. May 20-21, 1906, we were particularly struck with their numbers. They invariably haunted the ground and brush piles, acting more like members of the genus *Geothlypis* than *Dendroica*. Several were taken for Connecticuts, from their peculiar skulking actions, and suffered in consequence. Although their kind was singing all around them they uttered nothing but commonplace little peeps. Their plumage was worn and soiled, and all taken proved to be females with poorly developed ovaries.

164. **Dendroica cærulescens.*—Black-throated Blue Warbler.

A common spring and fall migrant. May 13-14, 1905, was about the culmination of their migration and they were abundant in all the wooded sections of the Point. The next year, May 20-21, was a little late for them and consequently but few were seen. During the abnormal spring of 1907, six and four were seen May 31 and

June 1 respectively. None were seen May 1-4, 1908. In the fall they seem to occur in greatest abundance about the first week of September. In 1905 they were common from September 4 to 13, after which their numbers suddenly dropped off to nothing. The next year they were present in limited numbers the first three days of the month, and on our return visit from the 15th to 22d, several to fifteen were noted each day, the latter number being reached but once, the 20th. As late as October 14, ten were noted. They had not put in an appearance on the Point in 1907 up to the time of our departure September 6. A valuable field mark for this species is the white spot at the base of the folded primaries, that is present to a more or less marked degree in nearly all plumages. This is one of the few warblers of which the fall juveniles are almost indistinguishable in plumage from the spring adults.

165. **Dendroica coronata.*—Myrtle Warbler.

May 14, 1905, this species was common on the Point and, though we failed to notice any May 20-21, 1906, one was seen each day of May 30 and June 1, 1907. This late date, however, means very little from a migrational standpoint for, as has been before mentioned, it was an abnormal spring and many birds remained long after their usual time for departure had passed. May 1-3, 1908, it was fairly common on all three days spent on the Point. In 1905 but one individual was observed October 29, as they had not yet arrived up to the time of our departure on the former trip, September 15. The following year the first fall migrant was noted September 20, and more the next two succeeding days, and were quite numerous October 14 and 15. None were detected the fall of 1907 to the date of our leaving, September 6.

166. **Dendroica maculosa.*—Magnolia Warbler.

But two seen May 2, 1908, but common on all other May trips. Six were noted as late as June 1, 1907. September, 1905, it was fluctuatingly common from the 4th to 15th, common the first three days of the month in 1906, but very variable in numbers from the 16th to 21st, when it only reached numbers to be designated common the 20th. Several were noted each day from August 27th to our departure September 6, 1907.

167. **Dendroica cærulea.*—Cerulean Warbler.

Although the Cerulean Warbler is a common migrant, and not uncommon breeder on the adjacent Michigan side of the international boundary, it was far from numerous at any season when we have been at the Point. In the spring we have seen but a few individuals, May 14, 1905, and 20, 1906. It is an early migrant in fall and usually passes through this latitude the latter part of August. September

4, 1905, one was taken, and in 1907 a few were seen each day from August 26 to 29, when the last evidently departed.

168. **Dendroica pensylvanica*.– Chestnut-sided Warbler.

Common spring migrant and regular, but in more limited numbers, in the fall. May 14, 1905, it was common, but we saw none May 20-21, 1906. Among the other extraordinary occurrences of the spring of 1907 was the great numbers of this species noted June 1. We estimated the numbers seen that day as 150. In the fall we noted a few at the beginning and end of our stay, September 4-15. One each day September 3, 18 and 19, 1906, and several were noted daily between August 29 and the time of our departure, September 6, 1907.

169. **Dendroica castanea*.—Bay-breasted Warbler.

A common spring and fall migrant. May 14, 1905, it was almost abundant and was certainly the most common warbler migrant on the Point. May 20-21, 1906, was a little late for their normal migration, but the abnormal spring of 1907 saw them still present in considerable numbers June 1. None were noted May 1-4, 1908. In the fall we have seen them in fair numbers on all of our September trips, in 1907 as early as August 26. They generally come in company with the Black-polls, which rather outnumber them in abundance, and which they so closely resemble in fall as to make the separation of the two species sometimes most difficult even to the most expert. It is rare, however, though it is sometimes said to occur, that a trace of the spring buff is not to be observed on the sides of the adults or a warm ochraceus suffusion is not noticeable on the sides of the juveniles of the species. The lack of the faint streaks on the breast, which usually show up on the Black-poll in life out of all proportion to their intensity as observed in dry skins, is diagnostic. The under-tail coverts of the Bay-breast are also cream color, while in the Black-poll they are pure white. The color of the feet is said to be of value in separating the two species, it being stated that, in the Bay-breast these parts are dusky, while in the Black-poll they show a more yellowish brown color. This may be somewhat helpful in fresh birds, but in dry skins the difference, according to our series of specimens, is so slight and variable as to be of little use in determining the specific designation.

170. **Dendroica striata*.– Black-poll Warbler.

The peculiar spring distribution of this bird in this and adjoining sections of Michigan was touched upon by the authors in the Auk, 1907, p. 146-7. It is a very rare spring migrant at Detroit and, up to 1907, no spring records had been made for the county. At Port Huron, at the foot of Lake Huron, it is more common. It is abun-

dant in fall in both localities. At Pelee, it is a more or less common and regular spring migrant. May 14, 1905, a bird supposed to be of this species was shot and lost in the underbrush by Swales, near the base of the Point. The next year, May 21, the identification of this bird received verification, when several were taken or seen in about the same locality. May 30-June 1, 1907, we saw several each day. In the fall it has always been a very abundant migrant, and we have found it common on all September visits. September 3, 1906, was notable for a great wave of this species that came in the preceding night. As an unusual feature, there were few, if any Bay-breasts, among them. In 1907 the first was observed August 28. Our latest date is September 21, 1906, when they were still common on our departure.

171. **Dendroica blackburniæ*.—Blackburnian Warbler.

May 14, 1905, the Blackburian Warbler was common in all the deciduous and red-cedar woodland. May 20-21, the succeeding year, was a little late for them and we saw but one each day. May 30-June 1, 1907, they were very common. On the latter date we estimated the number seen as one hundred. It has not ordinarily proved as abundant in the fall as in the spring. A few were seen September, 1905, on the 4th, 5th and 14th. In 1906 we listed but single birds on the 17th and 20th of the same month. The first was seen, 1907, August 26, and from then on, until the day of our departure, September 6, several or more were noted almost daily.

172. **Dendroica virens*.—Black-throated Green Warbler.

Common May 14, 1905, but not observed May 20-21, 1906. In 1907 it broke all records by remaining until June 1, upon which date numbers were seen. Not noted May 1-4, 1908. September 4, 1905, it was present upon our arrival, and remained through our visit (until the 15th) in varying numbers. In 1906, it was not noted until September 18, after which several were observed each day until we left, the 21st. One was noted October 15 of the same year, but none put in an appearance in 1907 to the date of our departure, September 6.

173. **Dendroica palmarum*.—Palm Warbler.

Along the crest of the eastern sand dunes, wherever the stunted cottonwoods offered any cover, we found this species fairly common, May 13, 1905, but observed none the following day along the wooded shores of the west side. This and May 3-4, 1908, when it appeared quite common, are the only times we have met with the Palm Warbler on the Point in spring. Either real scarcity of numbers or its skulking habits and quiet coloration cause it to pass through unobserved. This is not a warbler that is commonly met with in the fall.

One was taken September 5, and another seen each day of the 13th, 14th, and 15th, 1905, in the waste fields near the end of the Point. It has not been noted on any other occasion.

174. **Dendroica discolor.*—Prairie Warbler.

September 5, 1905, Klugh took a juvenile male of this species in the dense thickets back of the eastern shore, just beyond the cross-road (see Auk XXIII, 1906, p. 105), making the third recorded specimen of the species for Ontario. This is our only record for the Point, though Saunders thought that he heard one singing September 20, 1906, and Taverner thought that he recognized another individual September 6, 1907, that he failed to secure, on the same grounds where Klugh took his. It may be found to be a regular though rare migrant on the Point.

175. **Seiurus aurocapillus.*—Oven-bird.

Surprisingly scarce in spring. This was an unexpected condition to meet anywhere in this section, for the Oven-bird is one of the commonest summer woodland residents we have. May 14, 1905, we saw but one, and none the 20th-21st of the same month, 1906. May 31 and June 1, 1907, when all migrations were so disorganized, five and eight were noted on the respective days. None were noted the first three days of May, 1908, by Swales and Wallace, though it is true that they were then hardly to be expected as at that time they had not as yet arrived about Detroit. From this data we conclude that but few, if any, breed on the Point, and that practically all seen there are migrants. In the fall they are fluctuatingly common. September 5-15, 1905, they were noted nearly every day, but were more common during the early days of the visit. In 1906 they were common the first three days of September, but a few were noted on the 18th, 20th and 21st. The fall of 1907 but two individuals were seen August 30 and 31. These may have represented breeding birds as the season was late and it was evident the migrants of this species had not yet arrived.

176. **Seiurus noveboracensis.*—Water-Thrush.

The Water-Thrush is, in all probability, a regular, if not a common spring migrant, though we have met it but once during the vernal migrations, May 15, 1905, when several were seen along the inside of the western road on the edge of the marsh. Dr. Brodie reports that, during his July trip of 1879, Water-Thrushes were "very common." Judging from adjoining Michigan standards this was rather surprising, as it is with us but a scarce migrant, and has yet to be discovered breeding with us. On our arrival at the Point, September 4, 1905, there were considerable numbers present, most of which left the night of the 5th, for after that date but few singles

were noted until the 10th, when the last was observed. September 2 and 3, 1906, but one and two were seen on the respective days, and none on the return dates in the middle of the month. One of the interesting features of the fall trip of 1907 was the unprecedented number of this species present. We arrived August 24, and the 26th several were noted, and the next day the species became abundant, remaining so until the 1st of September, when there was a falling off in numbers, increasing to several the 3d and two the 4th; the species seems then to have departed. During the height of their abundance they were the most conspicuous bird on the Point, and were seen in all kinds of places, and at all times. They were in the low, damp spots in the woods, in the high walnut timber, and in the red cedar thickets. They were common everywhere. We found them in the last outlying brush pile near the end of the final sand spit, and in patches of weeds and cottonwoods along the eastern sand dune, near Grubb's fish house. It was no unconmon sight to have four or five in the same field of vision, besides others that could be heard and not seen. Indeed it was rare when we could get out of sight or hearing of at least one individual, for any appreciable length of time. They uttered no song, but constantly gave vent to their characteristic short "chup." It is not improbable that this flight of Water-Thrushes is of somewhat regular occurrence on the Point. Brodie's statement before quoted rather substantiates this. As has been before mentioned, the migrations were late in starting in the fall of 1907, and this would explain why we had not met the species commonly before, in other years.

177. **Sciurus motacilla*.—Louisiana Water-Thrush.

Contrary to our expectations we have found this species the rarer of the two Water-Thrushes on the Point. In adjoining Michigan localities this is the common form as migrant, and the only breeder, as so far recorded. On the Point, however, we regard it as quite rare. Our only date for the species in the locality being one seen by Saunders, August 28, 1907.

178. **Geothlypis agilis*.—Connecticut Warbler.

It seems to be the general impression among the ornithologists of this section that the Connecticut Warbler has much increased in numbers in the last decade or so. However that may be, whether due to real greater abundance or to observers knowing better where to seek and what to look for, they have advanced their apparent status from one of the rarest to a barely scarce species. This is true not only of Pelee, but of other surrounding territory. Saunders was the first to call attention to the number of Connections on the Point when he reported them as "Quite common for a few days in June (1884) (Auk II, 1885, 1-307) as a ground feeder in dray places where

on above trip several were procured." He also states in private correspondence that he found them "Quite common May 30 to June 4, 1884," thus locating the dates more exactly. May 14, 1905, we saw two on our walk in along the east road. May 20-21, 1906, none were observed; but the 30th of the same month the succeeding spring three were noted. In the fall we have found the species still more abundant. In September, 1905, six and two were noted or taken the 5th and 6th, and another one the 10th. The first three days of September, 1906, it was almost common and we were able to secure as many specimens as we had any desire for. They haunted the damp tangle bordering the eastern beach near Gardner's and along the Cross-road, and were still more frequently met with in the beds of Jewel-weed, closely adjoining, in the open spots of the woods. By remaining quiet in such places we were able to observe this interesting species at will. Though naturally shy when we were moving about, when the observer remained perfectly quiescent they would approach almost within reach of the hand. As far as we heard, they remained very quiet, uttering but the most commonplace little cheeps and those but rarely. On our return visit the middle of the same month we noted but two single individuals on the 17th and 18th. The fall of 1907, though we were present the first few days of September, the time of their great abundance the preceding year, owing to the general lateness of the early migrations, they had not put in an appearance, as a species, up to the date of our departure, September 6, though one was observed by Wood in a brush pile at the base of the final sandspit September 1st. This fall there were no such masses of Jewel-weed anywhere to be seen, and this may have had something to do with their non-appearance, the early migrants, missing the congenial quarters of last year, passed on across the lake without lingering.

179. **Oporornis philadelphia*.—Mourning Warbler.

The Mourning Warbler is a rather uncommon migrant. In fact, of late years, it has decreased so as to be even less common than the preceding species. This condition, however, is not peculiar to Point Pelee, but applies equally to our Detroit stations. None were noted May 13-14, 1905, and but one May 21, of the succeeding year. May 31 and June 1, 1907, however, we were more fortunate and five and one were noted on the respective days. They sang freely with a song much similar in quality to that of the Connecticut, but hardly as throaty, and differently accented. Fall dates on this species are difficult to get and greatly to be desired. We always supposed that they slipped through very early and so passed unobserved. This has been corroborated by the data we have been able to gather the last two years at Pelee. Keays noted one September 17, 1901, and we took another September 3, 1906, with the Connecticuts, in the Jewel-

weed before spoken of. In 1907 two were taken August 27, one the 30th, and another the 31st. The last one was observed September 2. Seeing that the migrations were late this year, it is more than likely that the Mourning Warbler normally passes through about the third week in August, and it is one of the earliest migrants to be looked for in fall.

The juvenile fall Mourning Warbler closely resembles the young Connecticut, but can be readily distinguished from it by the yellow and greyish suffusion over the throat and foreneck.

180. **Geothlypis trichas brachidactyla*.—Northern Yellow-throat.

The Yellow-throat has been common on all May visits, but of peculiar occurrence in fall. In 1905 six were observed on the first day of our arrival, September 4, and then no more until the 14th, when they became common. In 1906, they were very common the first three days of September, but on our return trip they were far less abundant, and but two or three were noted the 15th, 17th, 18th, and six the 19th. One was still present this year as late as October 14. From August 24 to September 6, 1907, none were observed at all. The only obvious explanation of this erratic procedure is that either few or no Yellow-throats breed on the Point, or else that the summer residents depart early in the fall, and that at the time of our arrival and stay in 1907 the migrants had not yet arrived. This species remains with us usually until well into October, but all our fall data at Pelee points to the conclusion that there is a strong migrational movement among them, beginning the latter part of August.

181. **Icteria virens*.—Yellow-breasted Chat.

Point Pelee is the only locality in Canada where the Yellow-breasted Chat is any more than a rare accidental straggler. How far its range here extends inland we are unable to state, as our work has never extended inland beyond the base of the Point. The first observation on the Chat in Canada was likely made here, as Dr. Brodie says of his July trip of 1879,—"A specimen recently killed was brought to me by school children. The bird had flown in through an open window of the school and was killed against the glass in an opposite window." June 6, 1884, Saunders secured specimens as recorded by Macoun in his Birds of Canada. May 13, 1905, we found several pairs in a waste clearing, grown up to bushes, near the base of the Point, and secured one and the next day another by the road along the edge of the marsh on the east side. May 20-21, 1906, two and one were observed or taken beyond Gardner's place on the respective days. May 31, 1907, three more were observed in about the same locality. Swales and Wallace saw one May 3, 1908. This is a species that departs early in the season and

drifts away so quietly as to be rarely noted on the fall migrations. In the spring no bird could be noisier or more conspicuous in its chosen haunts, but by the middle of July it relapses into silence and is seldom noted thereafter. We have consequently never seen the species on any of our fall trips, as it likely departed considerably before our earliest autumn trip.

182. **Wilsonia pusilla.*—Wilson's Warbler.

A regular and not uncommon migrant, spring and fall. May 13-14, 1905, none were seen; in 1906 one was observed May 20; and eight May 31, 1907. September 6, 1905, seven were noted. They increased to common on the 8th, and then diminished to one the 15th the day of our departure. In 1906, one and one was present September 1 and 3, and two more the 20th. The species put in an appearance in 1907 August 12, and gradually increased in numbers until September 4, when fifteen were listed. They were still present in some numbers when we left the 6th.

183. **Setophaga ruticilla.*—American Redstart.

Practically common on all seasonable visits, except that of May 3-4, 1908, when most birds were late in arriving, and this was one that had not as yet put in an appearance. The only peculiarity in their numbers as noted at the Point is the usual great increase the first few days of September over later conditions. In 1905 they were much more common September 5 and 6 than they were thereafter. In 1906 they were very abundant the first three days of the month, but on the return trip, the 15th-21st, we saw none until the 17th, and then they were but fairly common, to our departure. In 1907 they were present on our arrival, August 24, increasing gradually to common the 28th, and remained so with small fluctuations until our departure, September 6.

[TO BE CONCLUDED.]

ALL DAY WITH THE BIRDS.

NEW BREMEN, OHIO, May 14, 1908.

From 3 a. m. to 4:30 a. m., trees and fields in and around New Bremen. Drive 4:30 a. m. to 5:10 a. m. four miles to northwest of New Bremen. Large woods of 80 acres worked till 8:10 a. m., then drive four miles farther northwest to southeast corner of Grand Reservoir, on and around Grand Reservoir till 4 p. m., then drive southeast three miles to a large woods till 6 p. m., then home by same road as in the morning; home at 7:20 p. m. Loss, one hour for hitching, feeding and luncheon, spending fifteen hours afield. Temperature rather warm. A few insignificant showers at 4 p. m. and 12:30 p. m. Sun rose fully, but sky soon overcast. This continued alternately throughout the day. Surprise of the day: the Tern's on the Reservoir. Disappointments: missing the Kinglets, the

Screech Owl and the Cape May Warbler, all having been seen around my house on the previous days.

Mr. Kuenning at times called my attention to several birds unknown to him, which he saw first, and they were then identified by me, thus helping me make the record, but he did not see one species that I did not also see.

W. F. HENNINGER.
G. A. KUENNING.

1. Common Tern, 17.
2. Black Tern, 2.
3. Blue-winged Teal, 2.
4. Lesser (?) Scaup Duck, 1.
5. American Bittern, 3.
6. Least Bittern, 3.
7. Great Blue Heron, 2.
8. Green Heron, 5.
9. Black-crowned Night Heron, 1.
10. King Rail, 1.
11. Virginia Rail, 1.
12. Sora, 2.
13. Florida Gallinule, C.
14. American Coot, 3.
15. Wilson's Snipe, 1.
16. Yellow-legs, 1.
17. Solitary Sandpiper, 1.
18. Bartramian Sandpiper, 1.
19. Spotted Sandpiper, 3.
20. Killdeer, 2.
21. Bob-white, 3.
22. Mourning Dove, 5.
23. Turkey Vulture, 1.
24. Marsh Hawk, 1.
25. Sharp-shinned Hawk, 3.
26. Cooper's Hawk, 1.
27. Red-tailed Hawk, 1.
28. Broad-winged Hawk, 1.
29. Pigeon Hawk, 2.
30. Sparrow Hawk, 4.
31. Great Horned Owl, 1.
32. Yellow-billed Cuckoo, Com.
33. Black-billed Cuckoo, 2.
34. Belted Kingfisher, 1.
35. Hairy Woodpecker, 1.
36. Downy Woodpecker, 3.
37. Red-headed Woodpecker, C.
38. Red-bellied Woodpecker, 1.
39. Northern Flicker, Com.
40. Nighthawk, 3.
41. Chimney Swift, Com.
42. Ruby-throated Hummer, 1.
43. Kingbird, Com.
44. Crested Flycatcher, Com.
45. Phœbe, Com.
46. Wood Pewee, Com.
47. Yellow-bellied Flycatcher, 1.
48. Green-crested Flycatcher, Com.
49. Alder Flycatcher, 3.
50. Least Flycatcher, 4.
51. Prairie Horned Lark, 1.
52. Blue Jay, 11.
53. American Crow, Com.
54. Bobolink, Com.
55. Cowbird, Com.
56. Red-winged Blackbird, C.
57. Meadowlark, C.
58. Orchard Oriole, 7.
59. Baltimore Oriole, C.
60. Bronzed Grackle, C.
61. American Goldfinch, C.
62. Vesper Sparrow, C.
63. Savanna Sparrow, 10.
64. Grasshopper Sparrow, C.
65. White-crowned Sparrow, 7.
66. White-throated Sparrow, 3.
67. Chipping Sparrow, C.
68. Field Sparrow, C.
69. Song Sparrow, C.
70. Swamp Sparrow, 1.
71. Towhee, C.
72. Cardinal, 3.
73. Rose-breasted Grosbeak, 1.
75. Indigo Bunting, C.
75. Scarlet Tanager, 1.
76. Purple Martin, C.
77. Barn Swallow, C.
78. Tree Swallow, C.
79. Bank Swallow, 5.
80. Rough-winged Swallow, 2.
81. Cedar Waxwing, 6.
82. Migrant Shrike, 3.
83. Red-eyed Vireo, C.
84. Warbling Vireo, C.
85. Yellow-throated Vireo, 4.
86. Blue-headed Vireo, C.
87. Black and White Warbler, 1.
88. Prothonotary Warbler, 2.
89. Blue-winged Warbler, C.
90. Golden-winged Warbler, 3.

91. Nashville Warbler, 1.
92. Orange-crowned Warbler, 1.
93. Tennessee Warbler, 3.
94. Yellow Warbler, C.
95. Black-throated Blue Warbler, 2.
96. Myrtle Warbler, 2.
97. Magnolia Warbler, C.
98. Cerulean Warbler, 2.
99. Chestnut-sided Warbler, 3.
100. Bay-breasted Warbler, 1.
101. Black-poll Warbler, 15.
102. Blackburnian Warbler, 10.
103. Black-throated Green Warbler, C.
104. Pine Warbler, 2.
105. Palm Warbler, C.
106. Oven-bird, 5.
107. Water-Thrush, 1.
108. Mourning Warbler, 4.
110. Yellow-breasted Chat, 3.
111. Wilson's Warbler, 2.
112. Canadian Warbler, 10.
113. American Redstart, C.
114. Catbird, C.
115. Brown Thrasher, 3.
116. Carolina Wren, 1.
117. Bewick's Wren, 3.
118. House Wren, C.
119. Long-billed Marsh Wren, C.
120. White-breasted Nuthatch, 1.
121. Red-breasted Nuthatch, 3.
122. Tufted Titmouse, C.
123. Chickadee, 2.
124. Blue-gray Gnatcatcher, C.
125. Wood Thrush, 2.
126. Wilson's Thrush, C.
127. Gray-cheeked Thrush, C.
128. Olive-backed Thrush, 4.
129. Hermit Thrush, 2.
130. American Robin, C.
131. Bluebird, C.
132. Kirtland Warbler, 1.
133. Northern Parula Warbler, 2.

Birds undoubtedly present, but not observed:

Red-shouldered Hawk.
Pied-billed Grebe.
Woodcock.
Barred Owl.
Screech Owl.
Ruby-crowned Kinglet.
Cape May Warbler.
American Long-eared Owl.
Greater Yellow-legs.
Bald Eagle.
Louisiana Water-Thrush.
American Pipit.
Cliff Swallow.
Whippoorwill.

GENEVA, N. Y., AND VICINITY, May 17, 1908.

The territory covered included a brook valley and woods, one-half miles to one and one-half miles northwest of Geneva; side trips to Canandaigua Lake, fourteen miles west, and to Cayuga Lake, eighteen miles east in the morning; afternoon trips to pine and chestnut woods and clearings, with some swamps, four miles north of Geneva, and evening visit to marsh along Seneca-Cayuga canal, two miles east of the city. The day was beautiful, cloudless, warm, 70° to 80°, with strong breeze until mid-day, calm in afternoon.

We were unfortunate in failing to see many birds, mostly common ones, which we knew to be in the country; but made a few rather surprising finds. These are indicated by asterisks. The trip to Cayuga Lake was made in the hope of seeing ducks, several species of which had been seen, in considerable numbers, on that lake only a week before. Practically all had disappeared, though a longer time spent on the marshes would probably have located Black Duck, Green-winged Teal and Hooded Merganser, as these often breed in the Montezuma marshes, at the foot of Cayuga Lake:

Pied-billed Grebe.
Herring Gull.
Lesser Scaup Duck.
American Bittern.
Green Heron,
*Black-crowned Night Heron.
Virginia Rail.
Sora.
Semipalmated Sandpiper.
Yellow-legs.
Spotted Sandpiper.
Killdeer.
Semipalmated Plover.
Ruffed Grouse.
Mourning Dove.
Cooper's Hawk (on nest).
Red-shouldered Hawk.
American Sparrow Hawk.
Black-billed Cuckoo.
Belted Kingfisher.
Downy Woodpecker.
Red-headed Woodpecker.
Northern Flicker.
Chimney Swift.
Ruby-throated Hummingbird.
Kingbird.
Crested Flycatcher.
Phœbe.
Wood Pewee.
Alder Flycatcher.
Least Flycatcher.
Prairie Horned Lark.
Crow.
Bobolink.
Cowbird.
Red-winged Blackbird.
Meadowlark.
Baltimore Oriole.
Bronzed Grackle.
Purple Finch.
American Goldfinch.
Vesper Sparrow.
Savanna Sparrow.
White-crowned Sparrow.
White-throated Sparrow.
Chipping Sparrow.
Field Sparrow.
Junco.
Swamp Sparrow.
Song Sparrow.
Towhee.
Rose-breasted Grosbeak.
Indigo Bunting.
Scarlet Tanager.
Purple Martin.
Cliff Swallow.
Barn Swallow.
Tree Swallow.
Rough-winged Swallow.
Cedar Waxwing.
Migrant Shrike.
Red-eyed Vireo.
Warbling Vireo.
Yellow-throated Vireo.
Nashville Warbler.
Tennessee Warbler.
Northern Parula Warbler.
*Cape May Warbler.
Yellow Warbler.
Myrtle Warbler.
Magnolia Warbler.
Chestnut-sided Warbler.
Bay-breasted Warbler.
Black-poll Warbler.
Blackburnian Warbler.
Black-throated Green Warbler.
Oven-bird.
Northern Yellow-throat.
Wilson's Warbler.
American Redstart.
Catbird.
Brown Thrasher.
House Wren.
Long-billed Marsh Wren.
Brown Creeper.
*Red-breasted Nuthatch.
Chickadee.
Ruby-crowned Kinglet.
Wood Thrush.
Wilson's Thrush.
Gray-cheeked Thrush.
Olive-backed Thrush.
Robin.
Bluebird.
English Sparrow.
Mongolian Pheasant.

96 species.

On the day before we also saw near Geneva in part of the same territory, Ring-billed Gull, Bonaparte's Gull, Common Tern, Turkey Vulture, Green-crested Flycatcher, and Blue-headed Vireo; while we know the following birds to be present here regularly, though we could not sight or hear them on the day of our survey. (Some of them were, however, reported as seen by other parties). Great Blue Heron, Florida Gallinule, Woodcock, Marsh Hawk, Red-tailed Hawk,

Barred Owl, Great Horned Owl, Yellow-billed Cuckoo, Hairy Woodpecker, Whippoorwill, Nighthawk, Blue Jay, Grasshopper Sparrow, Bank Swallow, Black-and-white Warbler, Water-Thrush, Louisiana Water-Thrush and White-breasted Nuthatch.

A noteworthy feature of bird-seeing this season was the arrival in April of warblers and other birds never previously recorded for this section before May. A marked decrease in the number of many warblers is also evident, especially Magnolia, Blackburnian, Chestnut-sided and Canadian. Of the latter none has been seen by either of us, though ordinarily not rare here. The cold and severe storms of the nesting season in the Adirondacks and Canada last year appear to have prevented normal maintenance of numbers in these and probably other species. OTTO MCCREARY AND F. H. HALL.

A NOTE ON THE SPRING MIGRATION, 1901, AT LELAND, UNCOMPAHGRE UTE INDIAN RESERVATION, UTAH.

BY H. TULLSEN.

The above is a long title for a short note, but having to do with a region so little studied ornithologically, this note may not be altogether useless. Leland, Utah, is an elevated point, about 5,000 feet above sea-level, on the Uinta, a branch of Green River. Sage-brush abounds on the dry plains, and along the streams are cotton-woods and other trees.

March 2d—Magpies first seen carrying twigs for nest.

March 17th—Flock of Mountain Bluebirds. On the day before a bird was seen perched on a post in the distance; this was probably one of these birds. From the 17th, common.

March 22d—Two western Meadowlarks seen. Next day five individuals were observed, and from that time they were common.

March 31st and April 7th and 8th—The Flycatcher (*Tyrannus verticalis*), one individual each time, was seen. Cannot state when they became common.

April 1st—Kildeers seen; they became common at once.

April 7th—Notes of a Robin heard.

April 13th—A belted Kingfisher seen. The "rattle" of one was heard a few days before this—date not recorded.

April 29th—Black-headed Grosbeaks. Several noted. They became common immediately.

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EDITORIAL.

The delay in the appearance of this number does not lie at the door of either the editor or printer.

The days immediately before us afford another opportunity to study the southward migration of the birds which breed north of us, and with the beginning of August, of the birds which are now breeding here. Too much emphasis cannot be placed upon the importance of more accurate data relating to this topic. Do you know when the southward migrations begin in your locality?

It is encouraging to note the good work which is being done by the Audubon Societies throughout the country in securing the reservation of the breeding places of many species of birds by executive decree. There ought to be similar action on the part of the Canadian Government in setting apart reservations among the Great Lakes where gulls and terns find breeding places. The most of such breeding places do not fall within Uncle Sam's domains. The Chicken and North Harbor islands, upon which the Common Terns breed in considerable numbers, are just over our line.

We note with a good deal of satisfaction that the birds are beginning to receive deserved attention by research students. Thus on

the structural side the development of feathers has been worked out; and the development of pigment in the feather, which was cleared up by the researches of Dr. R. M. Strong, has just been followed by a demonstration of the underlying principles of the distribution of that pigment in the feathers, in a paper by Dr. Oscar Riddle, in the Biological Bulletin for May. Dr. Riddle has also worked out "The Cause of the Production of "Down" and other "Down-like Structures in the Plumages of Birds," and the results appear in the Biological Bulletin for February of this year. On the side of color change and molt, Mr. C. William Beebe has experimented with birds in captivity, and his results seem to indicate that molt and the sequence of plumages, in the birds experimented with are "not in any way predestined through inheritance bringing about an unchangeable succession, ... but that it may be interrupted by certain external factors in the environmental complex." On the psychological side Professor Francis H. Herrick has contributed several articles to Science relating to "Cyclical Instincts" of birds—migrating, courting or mating, nest building, incubating, care of young, etc. And still there is abundance of room for other studies by as many people as may have the inclination to enter upon research within this group of animals.

FIELD NOTES.

THE "FARTHEST NORTH" RECORD OF THE CARDINAL IN IOWA.—On the bottom lands of the Mississippi River at the mouth of Sni Magill Creek, which is four miles south of the 43d parallel of latitude, on April 17th, 1908, a pair of Cardinals was seen by me. The female singing in a tree was noticed first, and she was soon joined by the male, also in song. From a resident of that locality it was learned that birds of their description were seen on a neighboring island on April 9th of this year. These birds are believed to be several miles farther north in Iowa than any of their species hitherto reported.

ALTHEA R. SHERMAN, *National, Iowa.*

A QUAIL TRAGEDY.—On the morning of February 27, 1908, near Sidney, Ohio, a flock of quails was noticed flying at full speed directly toward a house. The next instant they struck the building with a thud. We then observed that they had been pursued by a large hawk, possibly a Cooper's, although it seemed to be as large as a Red-tail. However, we failed to identify it. An examination showed that four quails had been killed instantly by the impact, and that two more had been stunned, one of which died in a few minutes. The other soon recovered, and upon hearing one of the scattered flock calling, we turned it loose. The ground was covered with snow and the sun

was shining brightly. These conditions, together with the fact that the house was painted white, probably favored the collision.

MISS FARIDA WILEY.

BACHMAN'S SPARROW IN TUSCARAWAS COUNTY.—I have the pleasure of reporting a Bachman's Sparrow for this county. It was seen April 22, on a weedy and bushy hillside in the northeastern part of the county, about a mile and a half northeast of Strasburg. As it sat on a fence-post about three rods away from me, and sang divinely, while my field-glass was fixed upon it, there could be no mistake of its wonderful vocal performances to be in error regarding it. According to Dawson's "Birds of Ohio," this bird has not hitherto been identified in this State farther north than Fairfield County. If any record of the bird's appearance has been made since the publication of Dawson's work, I have not seen it. My record brings the summer range of this lovely songster considerably farther north. The little minstrel rehearsed all the varieties of tune, now sprightly and glad, now slow and pensive, which Mr. Dawson describes so graphically. It is really wonderful that such a common-looking little bird should have so superb a syrinx.

LEANDER S. KEYSER, *Canal Dover, Ohio.*

BALD EAGLE (*Haliætus leucocephalus*) AND GREAT HORNED OWL (*Bubo virginianus*) OCCUPYING THE SAME NEST.—On the 15th of January, 1908, I received a box of Eagle's eggs from Florida, among which was one set collected under unusual circumstances as well as furnishing a remarkable record for a large sized nest of this species.

The locality was in Desota county, and the date of collection, December 17, 1907.

The gentleman who collected the eggs, writes that the old bird left the nest as he neared the large pine tree in which it was placed. A climb of 70 feet brought him to the top of the nest, but ere he had reached this point, he flushed a Horned Owl from a rude cavity in the side of the Eagle's nest, in which she had formed a nest and deposited two eggs.

This nest had been used for years by Bald Eagles, each annual addition of materials increasing the height until it reached fifteen feet up between the main forks of the tree. At the bottom it was eight feet through, where it was jammed in between the forks, and from here it tapered to four feet, ten feet up, and again spread out to six feet on top where the two Eagle eggs rested on soft, dry grass in the rudely-formed depression.

Four feet from the bottom of this huge pile of branches and debris was the Owl's home, containing two freshly laid eggs.

The Eagle's eggs must have been laid quite early in the month, as the embryos were beginning to form. They are large, clean, hand-

some specimens, measuring 2.94x2.16 and 2.90x2.16 inches. Both of them show traces of faint vinaceous and vinaceous-cinnamon markings scattered at random over the surface. In this respect they are of the very rarest type, but I might here add that one other set, taken by the same gentleman, shows these faint markings. These eggs are also very large specimens, measuring 3.08x2.18 and 2.92x2.18 inches.

J. WARREN JACOBS, *Waynesburg, Pa.*

BIRD NOTES FROM SOUTH-EASTERN IOWA; BLUE GOOSE (*Chen caerulescens*).—While hunting, March 21, 1908, about Green Bay, Lee County, Iowa, we found the Blue Goose. I think that day and the day before they were fairly common there; and we saw six together and shot one. I think they are quite rare, however, for old hunters could hardly believe there were any about.

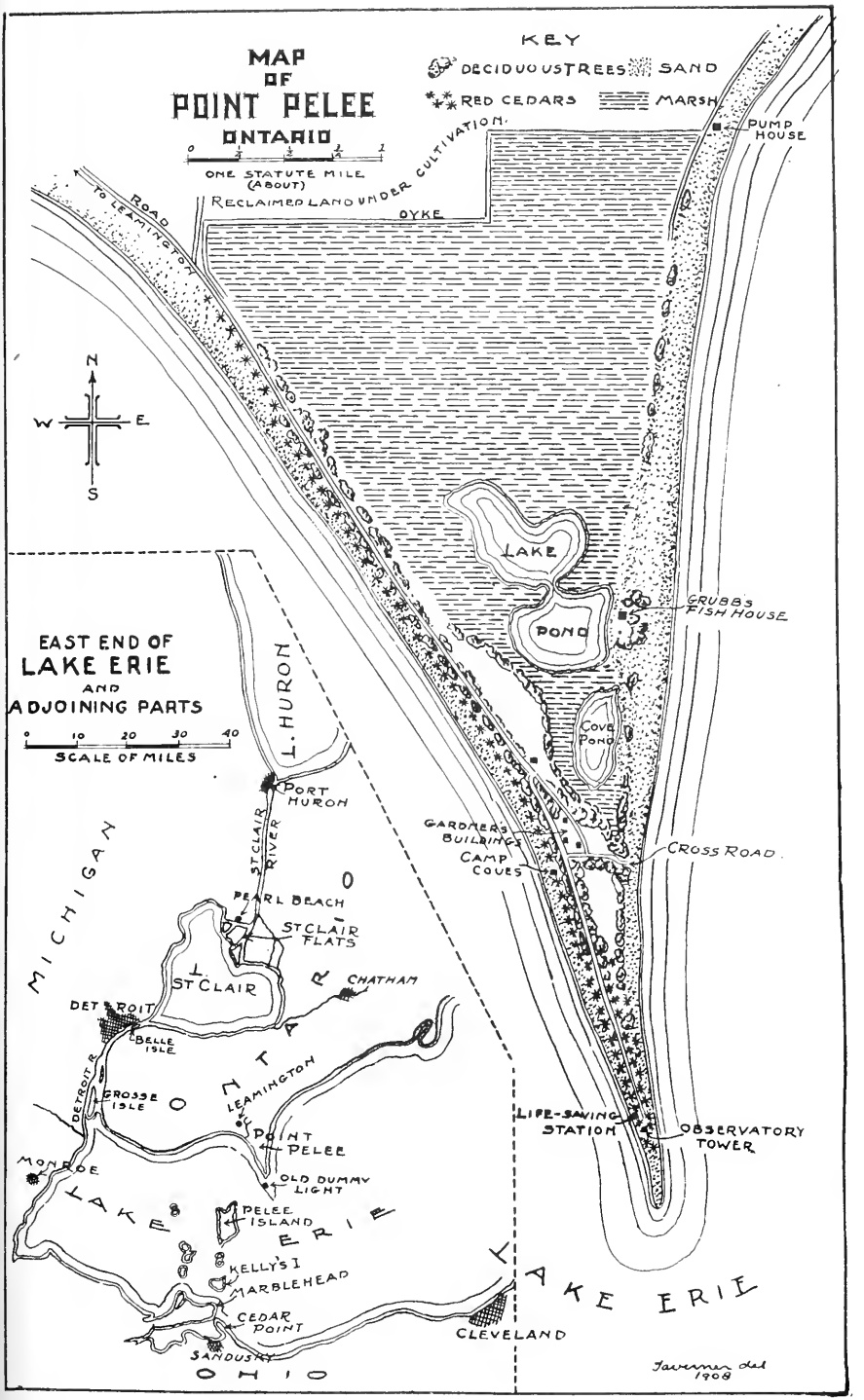
RED-HEADED WOODPECKER (*Melanerpes erythrocephalus*).—This bird was very common, in fact, abundant, in a large woods near Green Bay, March 19-21, when we were there. This is only six miles from here (Denmark, Iowa), yet none did I see here until April 22.

LECONTE'S SPARROW (*Ammodramus leconteï*).—This elusive sparrow was very common in the dried weeds near Green Bay, March 19-21. We frequently found them in flocks of half a dozen or more. They were exceedingly difficult to see and I shot two finally to make sure of the identification. A good many times I watched them drop down into a bunch of weeds and would literally have to kick the bunch before they would fly out, only to drop into the next one. They were fairly common here about Denmark (if one knew where to look for them) till April 21. Nearly every time I have found Swamp Sparrows in company with them.

ROBERT L. BAIRD, *Denmark, Iowa.*

BRUNNICH'S MURRE ON LAKE ERIE, 1907.—A Brunnich's Murre was found in the eastern part of Sandusky, Ohio, in the water near Big Island, and picked up December 1st, 1907. It lived two or three days in captivity. I had it mounted. The taxidermist told me lately that two others were brought to him at the same time. One of my pupils told me that four of these birds were shot December 3d, by the Teasel Brothers, who said they could have shot two more. It may be that the two not killed were those mentioned by the taxidermist.

E. L. MOSELEY, *Sandusky, Ohio.*


MAP
OF
POINT PELEE
ONTARIO
ONE STATUTE MILE
(ABOUT)
KEY
DECIDUOUS TREES
SAND
RED CEDARS
MARSH
PUMP HOUSE
RECLAIMED LAND UNDER CULTIVATION.
DYKE
ROAD TO LEAMINGTON
N
W
E
S
LAKE
POND
GRUBB'S FISH HOUSE
Cove Pond
EAST END OF
LAKE ERIE
AND
ADJOINING PARTS
SCALE OF MILES
L. HURON
PORT HURON
ST CLAIR RIVER
GARDNERS BUILDING
CAMP COVES
CROSS ROAD
MICHIGAN
PEARL BEACH
ST CLAIR FLATS
ST CLAIR
CHATHAM
DETROIT
BELLE ISLE
DETROIT R.
GROSSE ISLE
LEAMINGTON
POINT PELEE
LIFE-SAVING STATION
OBSERVATORY TOWER
MONROE
OLD DUMMY LIGHT
LAKE ERIE
PELEE ISLAND
KELLY'S I
MARBLEHEAD
CEDAR POINT
SANDUSKY
CLEVELAND
OHIO
Tavernier del
1908

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OLD SERIES VOL. XX. NEW SERIES VOL. XV.

THE BIRDS OF POINT PELEE.

BY P. A. TAVERNER AND B. H. SWALES.

(Continued from page 96.)

184. **Anthus pensilvanicus*.—American Pipit.

Doubtless of regular occurrence on the Point, both spring and fall, but owing to the seasonal occasions of our trips, we have noted it but once, October 15, 1906, when a few scattered individuals were observed along the top of the eastern sand dunes.

185. **Mimus polyglottos*.—Mockingbird.

May 20, 1906, while Swales and Fleming were walking in along the road on the west side of the Point, on the homeward trip, a Mockingbird was flushed opposite a newly planted orchard. Fleming secured the bird, which proved to be a male with well developed testes. It is now in his collection. Search was made for a possible mate, but without avail. (*Auk XXIII*, 1906, p. 344.)

186. **Galeoscoptes carolinensis*.—Catbird.

Common, with but one exception, on all May, August and September trips. August 15 and 16, 1908, it was surprisingly scarce, but one being noted the latter date. It was still present in some numbers October 14, 1906.

187. **Toxostoma rufum*.—Brown Thrasher.

Common on all spring visits except, as would be expected, that of March, 1907. May 1-3, 1908, their combined chorus was one of the features of the trip. This, despite low temperature and a heavy fall of snow, combined with a bitter gale blowing in off the lake.

The Brown Thrasher is considerable of a mimic, and on the Point has acquired some of the call notes of the Yellow-breasted Chat, sev-

eral times leading us merry chases after what we thought was that bird.

August 15-16, 1908, Brown Thrashers were but fairly common and probably represented the breeding population of the Point. The year previous, from the 24th of the same month on, they were much more abundant and, usually from the first of September to the appearance of the Sharp-shin flight, the species has been abundant. As soon as the hawks come the great bulk of them suddenly thin out. We have met with but little evidence that the *Accipitres* really catch any great numbers of them, but they are so harried and worried that they keep well within their favorite strongholds in the jumper beds that grow between the red cedars near the end of the Point. When the Sharp-shins are about in any numbers, it is with great difficulty that the Thrashers can be made to forsake this scrub. When they are finally forced to break cover, they make a quick dash to the next nearest clump, flying low, barely skimming the ground and immediately bury themselves in its innermost recesses. At such times they seem much less afraid of man than of hawks. This bird seems to remain considerably later in the fall on the Point than in adjoining Michigan stations. October 14, 1906, we were surprised to note at least twenty individuals at a considerably later date than anything we can find in our Detroit notes.

188. **Thryothorus ludovicianus*.—Carolina Wren.

This is another interesting species upon which Point Pelee bases its claim to originality among the Canadian faunas. The Carolina Wren is found regularly and commonly here, and in but few other localities in the Dominion. In August, 1901, Lynds Jones found the species on East Sister Island (*Will. Bull.*, 1901, pp. 70-71), but it was not until the fall of 1905 that it was added to the list of mainland birds. September 5 of that year Klugh took one and saw another. The next day four were observed or taken, and others noted the 7th, 8th, and 11th. Among these were two juveniles of different ages, and apparently belonging to separate broods. The youngest had the nestling down still attached to the plumage, and was evidently raised on the Point (*Auk XXIII.*, 1906, p. 105). In 1906, we noted three May 20 and took one in the same locality, where they had been seen the preceding fall. May 24 Saunders found them on the mainland just east of the base of the Point. In the fall they were noted September 1, 2, 3, and 19, and October 14. In 1907 single birds were heard or seen March 9, May 31, June 1, and August 29 and 30. In 1908 we found them scattered all over the end of the Point, from the Cross-Road out and singing vigorously August 15-16. Hitherto we had observed them but in a limited area on the east side near the end of the Cross Road.

It will be seen from this that the species is well established on the

Point. They frequent the densest jungle and are more often heard than seen. They flit from brush to brush just ahead of the excited collector bent on establishing an incontestable record, in a most provoking manner, leading him through mud-holes, tangle and bracken, keeping just out of gun shot, and usually out of sight, but enticing him on with explosive calls of encouragement. They frequent the higher branches of the trees to a greater extent than any other of our wrens and are often observed at considerable elevations. The song we have most frequently heard in both fall and spring could be written "pre—o—o—o—o." The first sylable uttered quickly and with a silvery roll, and the "o's" distinctly separate, with decided intervals between, and delivered with an explosive quality like the sound of large drops falling from a height into a still pool below. The whole uttered hurriedly and bubblingly, in the same metre as the song of the House Wren. This song is perfectly distinct, and like nothing else to be heard in the Transition Fauna woods. As before stated, August 15, 1908, the Carolina Wrens sang far more freely than we have heard before. In repertoire they are as versatile as a Thrasher and a Catbird combined and rival, if not surpass, the Chat in ability to make "funny noises."

189. **Troglodytes ædon*.—House Wren.

Common on all May visits and to be found in almost all kinds of localities, though perhaps the brush grown fences in the neighborhood of Gardner's farm buildings were the most favored. But few were noted during the early days of September, 1905, though by gradual increase they became common the 14th. Common all through September, 1908, and until October 14-15, when a number were noted. Not as many as usual seen August 24-September 6, 1907, and more were listed August 15-16, 1908. It is evident from this that the migrant birds arrived about the last of August and first of September, reaching their maximum the middle of the later month.

190. **Olbiorchilus hiemalis*.—Winter Wren.

Noted but once in the spring, May 1-2, 1908, when single birds were noted each day. In 1905, the first fall birds were noted September 14 and 15, the last days of our stay. In 1906 they were present when we arrived, September 15, and became almost common by the 17th, after which their numbers dwindled, though a couple were seen the 21st, when we departed. This last day one fellow became much interested in our tent and camping equipment. It explored the former several times thoroughly, searching every crevice. It examined our methods of packing, and sampled the crumbs of our commissary, gleaning from the cracks of the table, and seemed generally pleased with himself and us. Finally it flew to a neighboring brush pile and scolded us as we took down the tent and piled the

things into the wagon. Eight were seen October 14, 1906. Of course none have been seen during the August trips.

191. **Cistothorus stellaris.*—Short-billed Marsh Wren.

May 14, 1905, Saunders found a small colony of about half a dozen birds in the marsh bordering the dyke and secured one specimen. Frequent search since has failed to reveal the species again, but, as it is extremely local in distribution and retiring in habit, it could be easily overlooked in the vast extent of marsh to be surveyed.

192. **Telmatodytes palustris.*—Long-billed Marsh Wren.

A common species on all the marshes. They had hardly arrived in force May 13, 1905, nor the 21st of the same month of the succeeding year. May 31, 1907, however, they were present in numbers, and May 13, 1908, Swales found a number that had been driven out of their low lands by the high water up into the bushes among the tree trunks of the higher levels, where they conducted themselves in the unaccustomed habitat much after the manner of Winter Wrens. We have found them more or less common, though secretive, and rather hard to find on all fall visits. Then they seem partial to most circumscribed areas of marsh, and keep well down in the cat-tails, seldom venturing far in flight and uttering but the most commonplace and noncommital notes. Our latest date is October 15, 1906, when six were observed, though Gardner reported the presence of Wrens in the marsh several times during the winter of 1906-07. However the specific designation of these winter Wrens remains in doubt.

193. **Certhia familiaris americana.*—Brown Creeper.

Not noted in the spring until 1908, owing to the lateness of date of our visits. May 1 of the above year one was observed, and at least fifteen the 3d. Not noted the fall of 1905, until September 15, when one was seen and another the next day, the date of our departure. In 1908 the species put in an appearance September 17, and from then on until we left, the 21st, from three to eight were listed each day. They were common October 15, 1906, and even more numerous the 29th of the same month the previous year. Probably some remain through the winter.

194. **Sitta carolinensis.*—White-breasted Nuthatch.

This species, though met with on nearly all visits, has never been very common. Usually a few scattered individuals have made the day's record. Our date of greatest abundance was October 14, 1906, when ten were listed. Likely but few breed on the Point as our May dates are meager. Our fall dates are conflicting, but seem to indicate that the migrants arrive irregularly from the last of August to the middle of September.

195. **Sitta canadensis.*—Red-breasted Nuthatch.

The erratic appearance of this species in Southeastern Michigan and neighboring Ontario stations has been commented on by the writers elsewhere (*Auk XXIV*, 1907, p. 147). It is usually a scarce migrant, though some years very abundant. We have met with it in spring but once, May 31 and June 1, 1907, when eight and seventeen were noted respectively. This was a very unusually late spring, which accounts for their presence at this time. It was also the spring following their great fall abundance of 1906, which may have had something to do with their rather unusual numbers. In 1905 but three were noted October 29. The following year, when it will be remembered reports of their exceeding abundance came in from many localities, they were present and common September 1 to 3, and on our return trip from the 15th to 21st they were still more numerous. The culmination of their abundance, however, was reached October 14 and 15, when they were easily one of the most abundant birds on the Point and found in all conceivable localities except the marshes. Especially were they numerous in the waste fields near the end of the Point, where they crowded the dead and dry mullein stalks in such numbers as to be perceptible from some distance as blue masses. We have met with the species at the Point at no other times, but Saunders reports it as "very common September 8 to 10, with the Kinglets," and Keays noted from two to four daily from September 17 to 21, 1901.

196. **Penthestes atricapillus.*—Chickadee.

March 9-10, 1907, the Chickadee was common. One noted May 14, 1905, and another June 1, 1907. These are our only spring dates. September 5 and 7, 1905, and October 29 of the same year constitute our only fall dates. Our experience with the species at Detroit leads us to believe that it is more migrational than is generally supposed. They are common through the winter, but about the first of April the great bulk of them depart, leaving but a few scattered summer residents behind. They appear again about the end of August, though not becoming generally common until well into October. They are a good bird to listen for when searching for fall warblers. Their cheery voice can be heard some distance and the following of it up often leads one to a nice little bunch of other species with which they are fond of keeping company.

197. *Regulus satrapa.*—Golden-crowned Kinglet.

Met with but twice in the late fall, October 29, 1905, and October 13-15, 1906.

198. **Regulus calendula.*—Ruby-crowned Kinglet.

We have noted this species but once in spring, May 13-14, 1905, when but a few were seen. In the fall it has been rather irregular.

September 8, 1905, Klugh noted a few individuals, and the next year it put in an appearance September 17, increasing to common on the 26th, remaining so until our late visit, October 14, when there were still numbers present. The Ruby-crown has quite a distinctive habit of flitting its wings while pausing for a moment between its short flights from bough to bough in the trees. By this little trait it can often be recognized from the Golden-crown, when phases of plumage render it almost indistinguishable from that species. It usually reserves its vocal efforts for the silent northern woods; but once in a while it does favor us Southerns with a few extracts of its part in the wild northern symphony; and we are surprised at so much richness of tone, sweetness of melody and strength of voice combined in so small a compass.

199. **Polioptila carulea*—Blue-gray Gnatcatcher.

May 14, 1905, the Blue-gray Gnatcatcher was common on the Point. We did not meet it in spring again until May 31, 1907, when two were noted August 25. They became common the next day, remaining fluctuatingly so until September 2, after which they gradually thinned out to the time of our departure the 6th. The morning of the 5th we were stationed on the lookout tower at the end of the Point when we saw a couple flying outwards, working from tree to tree, and at last vanishing in the last bush towards the final sand-spit. There was a heavy head wind blowing, bathing the shores with a line of breakers, against which Swallows and Martins were making steady and calm headway. Evidently the Gnatcatchers tried the passage also, for a few minutes later we saw them returning down the wind from over the water as if unable to make it. They came in, facing the wind and blowing backwards. When they reached the land they turned a little off the wind, increasing their efforts at the same time. The result was that they held their own in the direction in which the wind was blowing, but were carried gradually over sideways to the shelter of some heavier hard-wood trees, into which they plunged and, we presume, rested. We mention this little episode, as it may have some bearing on the present "Beam Wind" theory of migration. We have often taken advantage of this very same maneuver in rowing a boat across the course of a heavy wind or current. Hold the boat a little more than three parts facing the stress and work just hard enough to keep from being swept away and you will be surprised at the rapid progress made in a direction at right angles to that of the antagonistic force, and at a remarkably small expenditure of labor. That birds should take equal advantage of so obvious a principle is not surprising, and it may be one of the explanations of their apparent preference for migrating with a "Beam Wind." It would have an additional advantage also of blowing their feathers down closer to the body at all times and

avoiding the disconcerting occasional accident of stray scurries of wind blowing up in under the plumage and disarranging it, a proceeding that it is easily seen would be uncomfortable in all cases, and probably dangerous in many.

200. **Hylocichla mustelina*.—Wood Thrush.

Common May 14, 1905, and one May 20, 1907. Not seen at other times in spring. In fall we noted one September 13, 1905, and one each day of September 1, 2, and 19 and 20, 1906. In 1907 but two were seen September 29. The comparative rarity of this species is rather peculiar. There is plenty of promising looking ground, but it does not seem to be occupied. They likely migrate through in considerable numbers, but we have never managed to be there the right dates for this. The summer resident population of Wood Thrushes on the Point is evidently scanty.

201. **Hylocichla fuscescens*.—Wilson's Thrush.

Fairly common on nearly all visits. May 14, 1905, two seen, May 21, 1906, several; May 30-June 1, 1907, several each day. Usually common through the first part of September. Last seen in 1905, September 13, and one individual lingered the succeeding year as late as the 20th. In 1907 we saw them almost daily from August 24 to September 2, after which none were noted, though we remained until the 6th.

202. **Hylocichla alicia*.—Gray-cheeked Thrush.

This does not appear to be quite as common a species as the next on the Point. The two birds are, however, so much alike in appearance that it takes considerable attention and good opportunity in the way of light to separate them. As it is not always practicable to follow up and scrutinize every thrush flushed in the woods error in the records of these two species may at any time creep in. A few of either species might easily escape notice among numbers of the other. In spring we have positively identified this species but once, May 30-June 1, 1907, when we estimated their numbers at 25 and 6 respectively, and took specimens for full verification of so late a date. This spring was, however, so abnormally late that nothing in that line was any great surprise. May 21, 1906, we saw several that we thought might be referable to this species, though optical and other conditions precluded exact determination of this point. September 8, 1907, they put in their first appearance, becoming common at once together with the Olive-back and with them varying daily from none to common, irregularly to the date of our departure the 16th. In 1906 they were not to be found among the large numbers of Olive-backs present September 1-3, though we looked carefully for them. On the return visit, September 15-21, we

listed from one to several each day. The 18th a large number of Olive-backs came in and with them the Gray-cheek, and became very common for that day and the next. In 1907 two doubtful birds were noted September 4.

203. **Hylocichla ustulata swainsoni.*—Olive-backed Thrush.

Common May 11, 1905, and a few seen May 21, 1906. The late dates of May 30-June 1, 1907, saw them quite common, about equaling in numbers the preceding species. In September, 1905, the first arrived the 6th, becoming very common the 8th. It disappeared that night, but gradually increased again to the 13th, when it fairly swarmed all over the place, then slowly decreased in numbers to the end of our stay, the 16th. Our September 1-3 trip of 1906, found it already very common. On our return trip, September 15, it was not observed until the 17th, became common again the next two days, and again dwindled to one on the 21st, when we left. In 1907, in fall, but two birds were noted, September 4, whose exact specific status could not be determined. This and the preceding species are so nearly alike in outward appearance as to be readily mistaken one for the other. With good light and fair opportunity, however, the ochraceous suffusion on the side of the face of this species as contrasted with the ashy appearance to the same parts of the other consitute a recognition mark that is not readily mistaken. The difference between them seems much more marked in live than in dry museum specimens. These two species suffer greatly during the Sharp-shinned Hawk flights as mentioned before. During the periods of this Hawk's abundance little scattered piles of thrush feathers can be found every here and there through the underbrush.

204. **Hylocichla guttata pallasii.*—Hermit Thrush.

October 29, 1905, and October 14-15, 1906, are the only times we have been at the Point during the migration period of the Hermit Thrush. On both occasions they have been common.

205. **Planesticus migratorius.*—American Robin.

Common on all May dates. March 9-10, 1907, the first relay had already come and passed on as Gardner reported having seen several the 7th, which were certainly not in evidence to us. They were irregularly common during the early days of fall, but became abundant later when the wild grapes were ripe. During our early September dates they have usually been rather scarce for so common a bird, but October 29, 1905, and October 14-15, 1906, they were present in great numbers. Along in the afternoon of the latter date we observed a flock of this species start out from the end of the Point, headed across the lake for the Ohio shore.

206. **Sialia sialis.*—Bluebird.

May 13-14, 1905, the Bluebird, though common on the main-land, was not seen on the Point at all. May 21, the following year, but few were noted. March 9-10, 1907, however, they were already present in considerable numbers, though they had not as yet put in an appearance at Detroit, from whence we came. May 31, 1907, we saw but one on the Point. In early fall our experience has invariably been the same—Bluebirds scarce, rare, or absent on the Point proper, while common on the adjoining main-land. October 29, 1905, however, they were there in numbers amply sufficient to make up for deficiencies at other times. They were spread all over the end of the Point, and in along the eastern shore, as far as the cotton-wood trees extended. Here numbers were feeding on the bare sand with the Prairie Horned Larks. It was in the waste clearings beyond Gardner's place, however, that the greatest numbers were found. Here they were in flocks almost as dense as blackbirds. When flushed from the ground they generally flew to some of the numerous clumps of bushes growing here and there in the open and, when they lit and were viewed from a little distance, they were in sufficient numbers to give to the whole bush a decidedly blueish cast. We are informed by several witnesses that the winter of 1906-7 they wintered on the Point in some numbers and through the winter of 1907-8, Gardner wrote us several times of the presence of about six individuals in the neighborhood of his place. We have never known the species to winter with us about Detroit.

SUPPLEMENTARY LIST.

Species added to list since publication of the foregoing pages.

207. **Uria lomvia.*—Brünnich's Murre.

The occurrence of this species upon the Great Lakes constitute almost as great a problem as that of the great migratory irruption of the Sand Grouse in Europe. Normally of a purely Arctic habitat, its most southern breeding ground being Cape Wolstenholme, at the entrance to Hudson Bay, it has at irregular intervals in the late fall appeared on our inland lakes in great numbers. The first record flight occurred in the winter of 1893-4. Since then the last of November and first of December has seen greater or less numbers of them nearly every year on the lower lakes. The interesting part of it is that of all that so reach us none seem to survive more than a week or so. Once out of their northern waters they all seem to starve to death and are picked up on the shores in all stages of emaciation. We have various records of the species on the Detroit River from the great flight of 1896, and undoubtedly at that time

they occurred at the Point, but of that we have no record. The last of November, 1907, a number were taken on the Detroit River, and December 10 we received a bird from Gardner at the Point. He informs us that several were seen on the lake in the morning. In the afternoon but one remained, and it appeared weak and unable to fly. The next morning it was found dead and washed ashore on the beach. For further details of the occurrence of this bird see Fleming.—*Proc. Wth. Int'l Cong.*, 1905, pp. 528-43.

208. **Larus delawarensis*.—Ring-billed Gull.

Probably owing to the practical difficulty of separating this species from the larger Herring Gull the Ring-bill had, up to the fall of 1907, escaped our observation. However, that year, August 25 and to the time of our departure, September 6, we found them very common. Several were taken and proved to be juvenile birds, and all seen seemed to be in the same plumage. If anything it was rather more numerous than the Herring Gull, with which it constantly associated. We had every opportunity to study the two species together and found that about the only practical distinction that could be made between them in life was that of size, and then only when both were present and close enough together to allow of close comparison. The young Herring Gull having the same appearing ring on the bill as this species renders that mark of little reliability in juvenile birds. The tail of the former in immature stages is practically all fuscus, while in the Ring-bill it is mostly light at the base with a broad bar across near the end. This, however, is only observable from the upper surface, and so is seldom available as a field mark. August 15-16, 1908, we found quite a number already at the Point, so they must return early in August from their breeding grounds on Lake Huron.

209. *Merganser serrator*.—Red-breasted Merganser.

Under the head of American Merganser we stated that undoubtedly both species of *Merganser* occurred, but that *americanus* was the only one of which we had so far received authoritative data. Since that writing, however, we have been enabled to add this species definitely to our list, and at the same time added another interesting episode to our Pelee experiences.

May 1-3, 1908, the weather was very severe for that time of the year. A strong gale prevailed through the 1st and 2d, with a heavy snow storm through the afternoon of the latter date. The water was very high and the outer end of the Point was submerged for a distance of about half a mile, its outer tip bathed in raging surf, dashing great masses of feathery spume high in the air. Just around the end of the Point and just beyond the line of the most troubled water lay a mixed flock of ducks and grebes not more than fifty feet from the

shore. The seas swirling about the point were piling in here heavily on the shore, but undisturbed by the neighboring commotion and the wild tossing of the water under them they sat motionless on the surface, each with its head under its wing, and to all appearances fast asleep. Under cover of the heavy juniper scrub fringing the shores, Swales was enabled to creep up to the sleeping flock within easy gun range, and, with field glasses, watch them at close quarters. There were about twenty-five male Red-breasted Mergansers, a few Ruddys and Bufflehead in the flock, and with them, but keeping well bunched together, were a much larger number of Horned Grebes. While watching them the wonder grew as to how, while motionless, seeming sound asleep, they managed to keep the same relative distance from shore without being washed in on the beach on the one hand or carried away by the drift of the water on the other. For several hours, or as long as we observed them, they lay here, tossing about on the rough water, apparently oblivious to the whole world, but remaining stationary as though anchored in place.

This same spring the species was unusually common on the Detroit River and Lake St. Clair during late April and early May. It is usually a rather scarce species, but during these dates more were brought in to the taxidermist's establishments of the city than during any previous year of which we have any record.

LIST OF SPECIMENS RECEIVED, CONFIRMATORY OF EYE OR OTHER IDENTIFICATIONS GIVEN IN FOREGOING PAGES.

Larus philadelphia—Bonaparte's Gull.

Juvenile male taken by Taverner, August 15, 1908. About six were seen at that time, all in same phase of plumage.

Harelda hyemalis.—Old-squaw.

Male in full winter plumage, picked up dead on the shore, March 31, 1908, by Gardner and sent to us.

Rallus elegans.—King Rail.

Two specimens received from Gardner April 22, 1908.

Cathartes aura.—Turkey Vulture.

Received one bird from Gardner, April 24, 1908. See *Auk*, XXV, 1908, p. 328. It had been killed not more than two days' previous.

CONCLUSION AND SUMMARY.

Since writing the introductory and opening pages of this list, over a year has passed, and considerable data has been gathered that there seems no practical way of including under its proper heading. Some of the most important of this we have included

in supplementary lists and some of it falls naturally under this head. The remainder contains little of great importance, taken alone, and will have to wait a possible future publication, when a further accumulation of data warrants a reconsideration of the whole matter.

Since the last trip mentioned in the introduction, May 31, 1907, was made, three more visits have been paid to the Point, as follows:

August 24, 1907, in company with W. E. Saunders, Norman A. Wood, and J. S. Wallace, we established camp in the old situation marked "Camp Coues" on the accompanying map. This year, however, camping was not all roses, as it had been previous seasons. The days were beautiful, but the nights were rendered unbearable by the presence of clouds of mosquitoes. Nor was there any escape from them. They were of an unusually late and voracious brood, and smoke that made the eyes run and breath gag but stimulated their energy. Mr. Wood was the Moses who led us out of our difficulty, and we are afraid that without him camp would have been immediately struck until after frost. Acting upon his example and advice, we betook ourselves to a neighboring barn and, climbing up in the mow, laid ourselves down in the sweet new hay. Though great gaping cracks opened in the walls all around us there was not a single mosquito there. We think this worthy of mention as it may be the means of helping some other poor field collector to much needed rest. Mr. Wood is authority for the statement that there are never any mosquitos in hay mows, and as far as our experience goes we heartily endorse it and pass the good word along.

August 28, Saunders and Wallace left us and Swales departed the 31st, leaving Wood and Taverner, who remained until September 6. During this time we worked all parts of the outer Point except the marsh lands; paying special attention to the extreme end and the migrations therefrom. The shooting season opened the 1st of September and we examined the bags made by the hunters, questioned them closely, and received some good material in the way of specimens and notes from them. We were on the ground rather earlier this fall than we

had been before. The migrations were late in starting, and consequently we were able to observe occurrences of the earlier migrations that we had heretofore missed. We judge that at this time the migrations were about a week later than normal and this should be remembered in connection with the dates of the preceding list. The great bulk of the earlier wader migrants were still present when we arrived, and we found considerable numbers of other species that we had not previously noted or had seen but few stragglers of in the fall. On previous visits most of the shore birds observed had been juveniles but this season we found a good many adults among them.

The warblers as a family had not yet come down in their usual fall abundance up to the time when we left. Some species, it is true, were unusually common, such as the Mourning Warbler and Water-Thrush, but at no time were there any such numbers of many species of this family as were noted September 4 and 5, 1905, or 1 to 3, 1906.

On the whole, gauged by the results obtained, this was one of the most important trips we have made and substantiated in striking manner many of our ideas of the migrational importance of Point Pelee. Of this more anon.

The next visit to the Point was made by Swales and Wallace, May 1-3, 1908. The weather was most unseasonably cold and stormy during these days. A heavy gale blew all the first two days with a blinding snow storm the forenoon of the latter. The waters of Lake Erie were very high and a good part of the Point was under water. This had a most interesting effect on the marsh dwellers who were driven from their usual habitats well into the wooded sections. Rails were found running around among the red cedars near the end of the Point and the Marsh Wrens invaded the haunts of the Winter Wrens. On the marsh itself, where usually is seen nothing but an all-covering and all-concealing mass of reeds and cat-tails was open water over which Gallinules and Coots paddled and cackled and laughed in the broad light of day, laying bare some of their most hidden life-history secrets. The Bitterns, both American and Least, unable to reach the muddy bottom or find stable footing in their usual haunts,

were congregated along the steep shores by the road and here, unincumbered by the impedimenta of vegetable growth, could be watched with ease as they pursued the tenor of their daily economy unsuspicious of prying eyes. Warblers were scarce, a few only of the early ones being observed. This was also true at that date at adjoining localities. The late, cold spring held nearly everything back and species usually expected early in the month were not noted until the middle, and then, in many cases, rushed through so quickly as to give us but the most fleeting view of them as they passed. On the other hand Brown Thrashers were very common and when the morning of the 3rd broke bright and clear, their combined chorus, punctuated by the clear whistling of the Cardinals and the occasional chuckle of the Chat, made an impression not soon to be forgotten. The presence of a number of Whipoorwills, considering the condition of the weather, was a surprise. The Whipoorwill is a much more hardy bird than its close relative, the Nighthawk, and is much more often seen in early spring and late fall; but in spite of this we were hardly prepared to find so many of them during this early-April-like weather. Their usual fastnesses of the jumper tangle had been invaded by water and many of them were forced out into the most unlikely places, even into the middle of the waste clearings, among the dried grasses and mullein stalks toward the end of the Point.

Another trip was made, August 15-16, 1908, by Wallace and Taverner. We planned in this case to study the Point avifauna just before the begining of the migrations, but in this were disappointed, as the migrations were then already well under way. A number of warblers were already present, among them the Canadian, Mourning and the Water-Thrush, and another Prairie Warbler was added to our list of Pelee specimens. The flycatchers were already in force, the Pewees almost in their full fall numbers and the Kingbirds gathering. Bobolinks were passing over towards the south; also flocks of Cowbirds and Red-winged Blackbirds. Great flocks of Swallows, Barn, Bank, Tree and Rough-winged, were congregating at the end of the Point, and the 15th a flock of one hundred Martins was seen resting on the ridge of the fish house near the

end of the Point. Next day they were gone, having presumably continued their way. The east beach was not thoroughly worked and not many waders were seen. With the exception of the Spotted Sandpiper all seen under conditions by which age could be judged were adults. The Sanderling taken proving to be an old bird whereas heretofore on seasonally later dates, all were juvenile. The most conspicuous feature, however, was the number of Carolin Wrens singing. Up to this date we have found them in but one limited locality, but these days they were all over the end of the Point. On the whole, this visit was considerable of a surprise. Though nothing very startling was observed, the data obtained on the early beginnings of the fall migration were of considerable interest.

These last three trips added considerably to our knowledge of Point Pelee, especially in its migrational aspects and has verified many of our previous ideas, and suggested others before not thought of. One fact they have accentuated in a marked degree,—the "wave" like form of many of the migrations. Indeed we almost feel tempted to generalize by saying that nearly all species can at one time or another of the season be found here in such numbers as to constitute a "wave". In such manner we have so far noted the following species that are not usually regarded as gregarious; nor would we care to so designate them even after our experience with them here. Every indication goes to show that they are not drawn together as social collections, but rather by a community of interest, and their gatherings are rather the result of each individual, moved by common conditions, making for the same crossing place of the lake and arriving simultaneously. Detail of such occurrences can be obtained under their proper specific heads in the list.

Sharp-shinned Hawk.—Sept. 1882; Sept., 10-17, 1905; Sept. 15-22, 1906.

Northern Flicker.—Sept. 14-18, 1905; Sept. 15-22, 1906; Aug. 26-Sept. 6, 1907.

Whipcorwill.—Sept. 13, 1905; May 1-3, 1908.

Ruby-throated Hummingbird.—Sept. 1-3,1906.

Kingbird.—Aug. 24-29, 1907; Aug. 15-16, 1908.

Wood Pewee.—Sept. 1-8, 1905; Sept 1-3, 1906; Aug. 24-Sept. 6, 1907; Aug. 15-16, 1908.

Yellow-bellied Flycatcher.—Sept. 9-13, 1905; Aug. 29, 1907.

Least Flycatcher.—Aug. 28-29, 1907.

Orchard Oriole.—All May trips excepts that of 1908.

Baltimore Oriole.—All May trips except that of 1908.

Black-poll Warbler.—Sept. 3, 1906.

Water-Thrush.—Aug. 27.-Sept. 2,1907.

Red-breasted Nuthatch.—Oct. 14, 1905.

Gray-checked Thrush.—Sept. 11-13, 1905.

Olive-backed Thrush.—Sept. 13-15, 1905; Sept. 1-3, 1906.

Robin.—Oct. 29, 1905.

Bluebird.—Oct. 29, 1905.

Besides these, that have occurred in such absolute numbers as to warrant a loose designation of "flight" to their occurrence, we have at various times found the following so relatively numerous that, taking into consideration their usual rarity, we are almost justified in including them in the above list.

Duck Hawk.—Seen on nearly all September trips.

Pigeon Hawk.—Sept. 17, 1901; May 13, 1905; Sept. 16-19-21, 1906; Aug. 31, 1907; May 1, 1908.

American Goshawk.—Oct. 21-Jan. 18, 1906.

Philadelphia Vireo.—Sept. 19-20, 1906.

Blue-headed Vireo.—May 14, 1905.

Cape May Warbler.—Sept. 13, 1905; Aug. 29-Sept. 2, 1907.

Connecticut Warbler.—Aug 28-31, 1907.

Mourning Warbler.—Aug. 28-31,1907.

Of other species that are known and expected to travel in flocks we have met the following in unusual numbers.

Blue Jay.—Oct. 14, 1906.

Blackbirds, all species.—Aug. 27-30,1907; all Sept. dates, and especially Oct. 15, 1906.

Crow.—Oct. 14, 1906.

Bobolink.—Sept. 5, 1905; Sept. 18, 1906; Aug. 27-31, 1907; Aug. 15, 1908.

Purple Martin.—Aug. 26-Sept. 5, 1907; Aug. 15, 1908.

Barn Swallow.—Aug. 15-16, 1908, and all early Sept. dates.

Bank Swallow.—Aug. 15-16, 1908, and all early Sept. dates.

Rough-winged Swallow.—Aug. 24-27, 1907; Aug. 15-16, 1908.

Purple Finch.—Sept. 19-Oct. 14, 1906.

The above classification is, of course, loose and arbitrary, but is sufficient, and is mainly intended to call attention to certain facts pointing to the importance of Pelee as a migration route that might otherwise pass unobserved in the general list. Another fact, not strictly ornithological, but bearing on this same subject, struck us as of peculiar interest. Each September we have witnessed great gatherings of the common Milkweed or Monarch Butterfly, *Anosia plexippus*. They gather on the trees in hundreds. September 12, 1905, we found a cottonwood on the east beach whose lee was so covered with them as to appear red instead of green. In 1907 we noted in company with them large numbers of *Papilio cresphontes* and *P. troilus*. The Monarch is a well known migrant, but the other two are not, as we are aware, supposed to migrate at all. However all of these species were almost invariably observed flying in a most determined manner out the point; and on fine days there was a constant stream of them starting out from the end of the Point and making their way towards the opposite shore, following the same route taken by the majority of the bird migrants.

Another fact that has been well brought out by the work on the Point among the waders, the departure of the adults before the juveniles. The earlier birds of this class in the fall are almost invariably old birds, the birds of the year arriving generally just as the former are leaving or sometimes after they are gone. Thus, the only time we have found adult Sanderling and Semipalmated Plover in fall was Aug. 15, 1908. Both these species, previous years, but seasonally late in date, have been common but all have been juveniles. Up to the end of August the greater percentage of the Black-bellied Plover seen are old birds. From the first of September on, such are rare and the juveniles common.

It is also evident that the fall migrations commence a good deal earlier than is usually suspected. The first movement in this direction to be detected is the arrival of the first shore birds

beginning with the Solitary Sandpiper the end of the first week in July. By the middle of the month the Yellow Warblers begin to thin out. With us at Detroit this is all the migration phenomena we observe until the end of August when the first of the warblers arrive. Any increase in the number of birds previous to this date is generally ascribed to their greater activity after their nidification duties are over. At Pelee, however, it is evident that by the middle of August several species of land birds have come down from further north. Aug. 15-16, 1908, the following migrants of this class were present.

Kingbird, gathering and already in usual numbers.

Olive-sided Flycatcher.—two.

Wood Pewee.—in large numbers.

Bobolink.—Passing down the Point in flocks of five hundred daily.

Purple Martin.—large flock.

Barn Swallow
Bank Swallow
Tree Swallow
Rough-winged Swallow
} In large flocks and passing out towards the end of the Point.

Black and white Warbler.—several daily.

Water-Thrush.—One.

Prairie Warbler.—One taken.

Mourning Warbler.—One taken.

Canadian Warbler.—Several.

That these early dates indicate earlier migrations at Pelee than elsewhere we do not believe. In other localities a few or even many of the above species, spread over a broad front could and probably would pass through unobserved. Here it is different; the conformation of the land brings these earliest few migrants to a small focus, where observation of them is easier.

The presence of the above species in late summer is hardly less interesting than the absence of others at the same time. The Northern Yellow-throat is common during the spring months but is scarce in late August or absent altogether. We observed none Aug. 15, 1908, or from the 24th on in 1907. Early September usually brings in great numbers again. Consulting our S. E. Michigan data we should say that there was

no migrational activity in this species until the beginning of October but this experience at the Point indicates that they start moving the first of September and what seems to us like a stationary population is,in reality, a steady stream of migrants.

Like data points in the same direction with other species. Blue Jays as a species are permanent residents yet the middle of October, 1906, we saw them in large numbers crossing the lake. Blackbirds also migrate heavily from the last of August or earlier while the species seems to remain stationary in point of numbers until late in the fall, and they sometimes winter with us. Cedar Waxwings we have always suspected to be migratory though generally listed as not so; but we were hardly prepared to find them migrating the first of September; or the Robins and Bluebirds the middle of October, nearly a month before they are, as a species, due to leave us.

The Carolinian tendencies of the fauna have been previously enlarged upon in their botanical relations in the Description. The same tendency is markedly shown in the ornithology as the following list of species will demonstrate:

Cardinal.—common resident.

Carolina Wren.—regular and not uncommon resident. On our last visit almost abundant.

Yellow-breasted Chat.—common summer resident.

Blue-gray Gnatcatcher.—common migrant and likely regular breeder.

Orchard Oriole.—very common migrant and without doubt a common breeder.

Cerulean Warbler.—common migrant and likely breeds.

Besides these there are three other species of a more or less southern general distribution which were once common but are now rare or extinct on the Point. Their decrease, however, does not seem to be due to local causes as the same might be said of them in other surrounding territory.

Lark Sparrow, Grasshopper Sparrow and Dickcissel.

To this list of Carolinian birds might be added two stragglers —Mockingbird and Chuck-wills-widow.

The latter is of course a wanderer pure and simple, but the former had every indication of being perfectly at home and

there is no apparent reason why it might not have formed a permanent colony, especially as there is another old report of the bird from the not distant locality of Chatham.

Taking into consideration the irregular and intermittent character of the work done on the Point, the number of rarities there taken is significant. Such rare, irregular, or wandering species are far more apt to be seen on a main branch of the migrational current than along a small side stream or dead water bayou. In this list can be placed:

Buff-breasted Sandpiper, Hudsonian Godwit, Chuck-wills-widow, Henslow's Sparrow, Blue-winged Warbler, Prairie Warbler, Short-billed Marsh Wren, Mockingbird, Olive-sided Flycatcher, Duck Hawk, and Pigeon Hawk. Of these the Chuck-wills-widow and the Blue-winged Warbler form primal records for the Province and the Mockingbird the only absolutely incontestable one for that species. All these throw into prominence the importance of the locality as an ornithological observatory.

The absence of some species has been of almost as much interest as the presence of others. Among the most striking of these are the following:

Yellow-throated Vireo.

This is a very common summer resident and migrant along the whole southeastern shore of Michigan. It is rare on the Point and has only been noted occasionally. It increases in numbers again to the eastward and seems to reach its centre of abundance in Ontario about London where, however, it is but fairly common.

Tufted Titmouse.

This species is a more or less regular and not uncommon fall, spring, and winter visitor along the Michigan boundary line as far as the St. Clair Flats. On Belle Isle, in the Detroit river opposite the City of Detroit, it occurs commonly every winter, and likely nests sparingly all over this district, though, so far an Ann Arbor record (*Auk*, 1908-322) is the only affirmative data we have on the subject. As yet there are no Ontario records for the species at all, although it must almost necessarily sometimes wander over across the international bound-

ary line. It is common on the Ohio shore across from Pelee, and why it has not crossed over with the Cardinal and Carolina Wren is one of the interesting problems of distribution.

Green-crested Flycatcher.

The Green-crested Flycatcher has much the same general distribution on the American side of the line as the Tufted Titmouse, and like it, has never been taken in Ontario. There are ample and most promising looking woods for it all over the Point but in spite of a close scrutiny of almost every small flycatcher seen, it has escaped our observation so far.

Golden-winged Warbler.

This is one of the commonest summer residents among the warblers on the Michigan side of the International line, and an almost abundant migrant, but we have met with it but very sparingly at the Point.

On the other hand, there are cases where the tables are reversed, and there are a number of species more or less common on the Point that we, on the Michigan side of the line, seldom see. We will leave out most of the shore birds as they are plainly governed by the topographical surroundings, naming only:

Golden and Black-bellied Plover.

These have been mentioned before by the writers. (*Auk* 1907, p. 140). We have met the Golden Plover twice on the Point. There are several good records for the species in numbers on the Ontario side of Lake Ontario, but very few of them for adjoining Michigan localities. The Black-bellied is a little more common with us but is still but an irregular straggler; while at the Point it is both regular and common.

American Goshawk.

This species we have also enlarged upon in this connection in the before-cited paper. The flight of this species the fall of 1906, that extended over eastern Ontario and invaded Point Pelee in considerable numbers, seemed hardly to extend beyond the International boundary in Michigan, but few birds penetrating beyond the first tier of counties.

Black-poll Warbler.

This was also treated of in the before-mentioned citation.

This species at the Point is a common spring and fall migrant. On the Michigan side, in our locality, it is a common fall migrant but very rare in spring. Up to 1907, indeed, it had never been taken in this vicinity. However, May 19 of that year one was taken by Taverner at Pearl Beach, near the St. Clair Flats, and the succeeding year another May 16 at Detroit.

White-crowned Sparrow.

We have invariaby found the White-crowned Sparrow a common spring and fall migrant at the Point, but of late years, since 1904, it has been either rare or absent in our notes along the Michigan side of the line. It was more common this last spring of 1908, but in nothing like the numbers we have been accustomed to see in the past.

These are rather peculiar cases and seem to indicate that the source of the Point Pelee avifauna is distinct from that of the adjoining Michigan stations. The water chain joining lakes Huron and Erie seems to form a sharp dividing line between the two areas. This in the fall migrations is easily explained by the plausible theory that the two sections are traversed by migrational streams from opposite sides of Lake Huron. The dissimilarity of the spring migrants and summer residents can be explained in no such obivious manner. According to more or less currently accepted theories of Glacial drainage migration routes, it may be that Southeastern Michigan receives its migrant life by way of the old Maumee glacial drainage channels while Pelee is supplied by other routes; perhaps continuing along the Ohio river, past the mouth of the Wabash and up the Sicoto to the head waters of the Sandusky, then down that stream to Lake Erie and so across to Point Pelee. This is as yet purely conjectural through lack of further data on the subject. It suggests, however, an important line of work and one that is well worth following up.

And now the end of the work before us has come. That which was begun as a short informal list has, thanks to the generous editor of the Bulletin and the forebearance of the reader, lengthened out far beyond the original intentions of the writers as the data increased and the importance of the locality seemed to demand. No one is better aware of the manifold shortcom-

ings of the work than we are. With the time, means, and ability at our disposal we have done our best, and if we have only succeeded in calling the attention of some of the ornithological public to what seems to us to be one of the most promising fields of migrational and distributional investigation we shall feel that we have accomplished our end.

ALEXANDER WILSON.

III. THE UNSUCCESSFUL LOVER.

BY FRANK L. BURNS.

Quite early in his career, at the Pantheon, Edinburgh, Alexander Wilson, in the character of a poor, love-lorn peddler, recited some original verses entitled "The Loss of the Pack," in a debate on the question as to "whether disappointment in love, or the loss of a fortune is the hardest to bear"; concluding with the following:

> "Twas this, Sir President, that gart me start,
> Wi' meikle grief and sorrow at my heart,
> So gi'e my vote, frae sad experience, here
> That disappointed love is waur to bear
> Ten thousand times than loss o' warld's gear."

He afterwards experienced the pain and humiliation in the train of the first condition; but the enjoyment of even the most modest competence, much less the shock and worry of a financial failure, were ever to remain a theory to him; therefore, without disputing his verdict, the fact remains that he was, from experience, totally incompetent to judge comparatively.

For the purpose of casting additionl light on the personal character of Alexander Wilson; as well as to assemble a more or less important part of a number of closely related though widely distributed papers exhibiting in a measure self-conscious pseudo-philosophic meditations, hysterical sentimentalism and morbid melancholia; and the rapid transformation to accurate observation, sane self-restraint and vigorous application to a single design; the writer may, perhaps, be pardoned for the narration of his love romances, fragmentary as they are; in cold matter-of-fact words without the usual garnature deemed essential to a well-told tale of this nature.

It has been said by one of his biographers: "He has never yielded to the soft but patent sovereignty of love. In this respect he is almost alone among the warm-hearted sons of song. Rarely does he write of love; and when he does, it is like a man who might have thought about it, as about any other interest-

ing mental phenomena, but had never experienced its sublime power." [1] Another wrote: "Like many sons of toil, he was not bound by very strong ties of sentiment to his native country; and what is a little remarkable in a poet's life, he never formed any attachment of the heart such as bind men to their home. Here perhaps we may trace one cause of his want of success in poetry. Burns was always in love, and the passion never failed to kindle the fire of his genius. . . . But Wilson was a man of enterprise and action, and therefore was a stranger to many of those fine feelings and associations which give men success in poetry." [2] The third: "Female attachment he had none, or he wisely allowed them to hold him so lightly, as neither to interrupt his pursuits or disturb his peace."

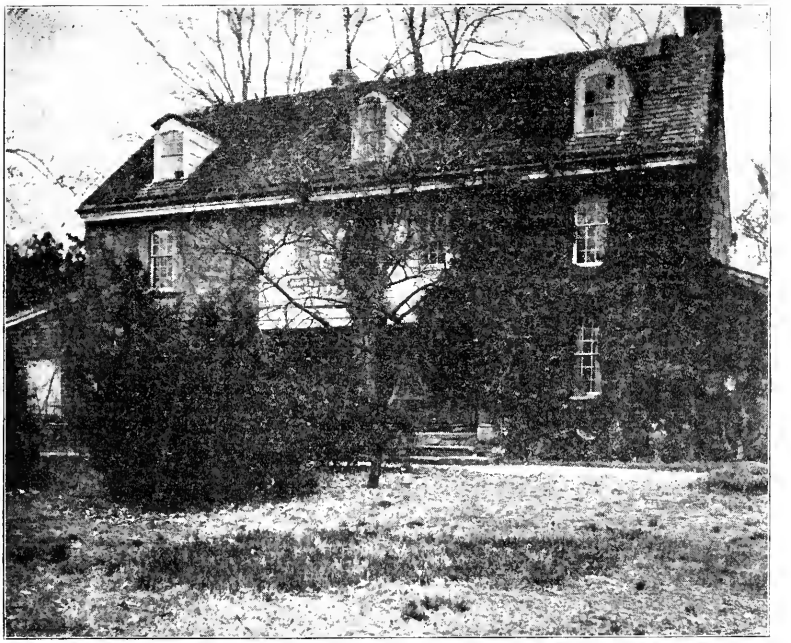
But like a great many other statements in reference to this man, the above are not based upon facts. There are indisputable evidence that he was not an exception to the rule, but during his forty-eight years of life, he had no less than four affairs of the heart, three of which were unfortunate from inception.

While yet known as "Sandy, the lazy weaver," in his own bonny Scotland, he "for some time had been attached to the sister of Mrs. Witherspoon, a pretty and respectable girl, to whom he made frequent allusions in his poems, though two only of those published contain any reference to her, and there can be little doubt that Martha McLean bore an influence with his fits of despondency." [3] She whom he addressed in his poems as "Matilda," and who "was snatched by fortune from his arms." [4] The same, doubtless, celebrated in some poor, sentimental verses of a song in which he is betrayed into stating that "Matty is fame and ambition to me."

Doubtless his earlier attachment made but a slight permanent impression upon his ardent nature, for while yet an unsettled, penniless schoolmaster, learning the German language in his adopted country; he writes to his friend Charles Orr: [5]

[1] Hetherington's Life of Wilson.
[2] Peabody's Life of Wilson.
[3] Jardine's Life of Wilson.
[4] Crichton's Life and Writings of Wilson.
[5] Grosart's Poems and Literary Prose of Alexander Wilson.

"Milestown, July 23, 1800. . . . It was about the middle of last May, one morning in taking my usual rounds, I was delighted with the luxuriance of nature that everywhere smiled around me. The trees were covered with blossoms, enclosing the infant fruit that was, at some future day, to give existence to others. The birds, in pairs, were busily engaged preparing their nests to accommodate their little offspring. The colt prances by the side of its dam; the bleating lambs were heard from every farm; and insects, in thousands, were preparing to usher their multitude into being. In short, all nature, every living thing around me, seemed cheerfully engaged in fulfilling that great command, 'multiply and replenish the earth,' excepting myself. I stood like a blank in this interesting scene, like a note of discord in this universal harmony of love and self-propagation; everything I saw seemed to reproach me as an unsocial wretch separated from the great chain of nature and living only for myself. No endearing female regarded me as her other self, no infant called me its father. I was like a dead tree in the midst of a green forest, or like a blasted ear amidst the yellow forest." This thought seemed to please him and he continues in a letter dated August 6, 1800: "Time has always been accounted among wise men the most precious gift of God to man; and has been, generally speaking, received and used as the most worthless and despicable. . . . Rose half an hour before day. Sauntered abroad, surveying the appearance of the fields, and contemplating the progressive advances of morning, the appearance of the moon, etc., without suggesting or having suggested one sentiment of grateful adoration to the great Architect of the Universe, without learning one truth that I was before ignorant of. Wrought one solitary problem before breakfast, composed eight lines of rhyme at noon, and am now writing these observations near evening. Thus fourteen hours passed almost unimproved away, and thus have thousands of precious hours perished! Not one prayer said, not one thought of matrimony entered my mind. An old bachelor, verging to the gloomy region of celibacy and old age, and clusters of dimple-cheeked, soft-eyed females in every log hut around, and



THE BARTRAM HOUSE.
Taken by Mr. Henry T. Coates, April 4, 1882.

sighing for a husband. . . . Mr. Sterne says, devoid of, a human being is undeserving the name of man. That is, to write a book, plant a tree, beget a child (I ought to have said, marry a wife first), build a house, and learn something every day that he did not before know."

A short time passes before he writes in very different strain to his friend Orr under the date of May 1st, 1801: "I have matters to lay before you that have almost distracted me. . . . I have no friend but yourself, and one whose friendship has involved us both in ruin, or threatens to do so." Three separate poems of no merit whatever, in which "Lavinia" seems to be the inspiration; one boldly addressed "to a young lady"; and his sudden withdrawal from Milestown, follow. It is evident that his affections had been won by a lady already married, whose name is carefully concealed by the Rev. Grosart, but as Dr. James Southall Wilson[1] says, he appears to have left the place with honor and discretion as soon as he realized its existence; although he implored his Philadelphia friend to send him tidings of the state of mind of his sweetheart: "July 2, 1801, Bloomfield, near Newark, New Jersey. . . . I have no company, and live unknowing and unknown. I have lost all relish for this country, and, if heaven spares me, I shall soon see the shores of old Caledonia. . . . In the meantime I request you, my dear friend, to oblige me in one thing if you wish me well. Go out on Saturday to ————'s and try to get intelligence how Mrs.————'s family comes on, without letting any one know that you have heard from me. Get all the particulars you can, what is said of me, and how Mrs.———— is, and every other information, and write me fully. I assure you I am very wretched, and this would give me the greatest satisfaction. ———— will tell you everything, but mention nothing of me to anybody on any account. Conceal nothing that you hear, but inform me of everything. My dear friend, I beg you will oblige me in this. I am very miserable on this unfortunate account." "July 23, 1801, Bloomfield. My Dear Friend. I received yours last evening. O how blessed it is to have one friend on whose affection, in the day of adversity, we can con-

[1] Alexander Wilson, Poet-Naturalist.

fide! As to the reports circulated in the neighborhood of Milestown, were I alone the subject of these they would never disturb me, but she who loved me dearer than her own soul, whose image is forever with me, whose heart is broken for her friendship to me, she must bear all with not one friend to whom she dare unbosom her sorrows. Of all the events of my life, nothing gives me such inexpressible misery as this. O, my dear friend, if you can hear anything of her real situation, and whatever it be disguise nothing from me. Take a walk up to ————'s, perhaps she has called lately there, and go out to ————'s on Saturday if possible. Let nobody whatever know that you have heard anything of me." "August 7, 1801, Bloomfield. My Dear Friend, I received yours yesterday. I entreat you keep me on the rack no longer. Can you not spare me *one* day to oblige me so much? Collect every information you can, but drop not a hint that you know anything of me. If it were possible you could see *her*, or any one who *had*, it would be unspeakable satisfaction to me. My dear Orr, the world is lost forever to me and I to the world. No time nor distance can ever banish her image from my mind. It is forever present with me, and my heart is broken with the most melancholy reflections. Whatever you may think of me, my dear friend, do not refuse me this favor to know how she is. Were your situation mine, I declare from the bottom of my soul I would hazard everything to oblige you. I leave the management of it to yourself. . . . Before you write, take a walk up to ————'s as if to enquire for me, and try if you can get any information there. I know that she used sometimes to go and see her. Forgive me, my dear friend, if in anything I have offended you. The more of mankind I see, the more sincerely I value your friendship, and trust it shall only dissolve when time to me shall be no more."

September 14, 1801: "The last letter I wrote you I fondly thought would be answered, but I have waited now three weeks in vain. . . . Your letters were all my company and amusement, but you have deprived me of even that."

February 7, 1802: "Mr. Orr, I have no faults to reproach you with. If I had, a consciousness of the number of my own

would justly impose silence on me. My disposition is to love those who love me with all the warmth of enthusiasm, but to feel with the keenest sensibility the smallest appearance of neglect or contempt from those I regard. Of your friendship I have a thousand times been truly proud; have boasted of your intimacy with me and your professional abilities, almost wherever I went. I have poured my soul into your bosom. If I have met, or only supposed that I have, in the moments of anxiety and deep mental perturbation, met with cold indifference from the only quarter I expected the sweets of friendship, they little know my heart who would expect it to make no impression on me."

February 14, 1802: "Dear Sir. It is too much. I cannot part with you after what you have said. I renounce with pleasure every harsh thought I hastily entertained of you. . . . I never spent ten weeks more unhappy than these have been, and it will be some time before my mind recovers itself. Past hopes, present difficulties, and a gloomy futurity, have almost deranged my ideas, and too deeply affected me."

"Of actual misconduct there is no evidence whatever; and in the too frequent instances of similar attachment in the lives of eminent men, very few indeed have acted with the same promptness and spirit of honor as Wilson, who, as we shall see, at once sacrificed his situation, and effectually and forever separated himself from the object of his regard."[1]

Yet we find him in February, 1806, planning with his nephew, William Duncan, now schoolmaster at Milestown, to go to that place to take part in a political debate; which was not carried into effect for various reasons.

The truth-loving student does not have to read between the lines to infer that Wilson's conduct in the above peculiar instances, while at Milestown, lacked self-restraint, and was open to censure, even while it is shrouded in considerable mystery. The last letters were written from Gray's Ferry, Philadelphia. Time and absence wrought a partial cure, and he writes on July 15th, 1802: "My harp is new strung, and my soul glows with more ardour than ever to emulate those immortal bards

[1] Paton's Wilson the Ornithologist.

who have gone before me"; but he was subject to periods of despondency, and Colonel Carr, who had it from Wilson himself, relates to Ord that, "while he labored under great depression of spirits, in order to soothe his mind, he one day rambled with his gun. The piece by accident slipped from his hands, and in making an effort to regain it, the lock was cocked. At that moment had the gun gone off, it is more than probable that he would have lost his life, as the muzzle was opposite to his breast. When Wilson reflected on the danger which he had escaped, he shuddered at the idea of the imputation of suicide, which a fatal occurrence, to one in his frame of mind, would have occasioned. There is room to conjecture that many have accidentally met their end, whose memories have been sullied by the alleged crime of self-murder."[1] Mr. Lawson, the engraver, advised Wilson to turn his attention to drawing in his moments of leisure, in place of his flute-playing and verse-making; as being conducive to the restoration of his mental equilibrium; and a recent acquaintance with the venerable William Bartram induced him to make the effort, opening up new channels of thought and vistas of beauty; not the least of which was Bartram's fair niece.

Verily, like cures like! The episode I am about to relate could scarcely have been unknown to Ord, although he makes no allusion to it other than the publication of Wilson's letters to Bartram; and while it must have been patent to every close student of Wilson's life and works, the fact of his love for Ann Bartram and of the positive disapproval of his suit by her father; was first published a little more than a decade ago by a young Scotchman, at the time connected with the public press; and was based upon a paper on the family traditions prepared by William Middleton Bartram, but suppressed for family reasons. Although Mr. Bartram informed me that a portion of this newspaper article[1] was authentic, I find it glaringly inaccurate in many respects, as well as far too highly colored and theatrical to make its preservation worth while; and as William M. Bartram died before his contemplated history of the Bartram Garden and Family had taken shape, whatever was

[1] Ord's Life of Wilson.

really known by him in connection with this romance is probably lost. It is also unfortunate that the late Mrs. Robins did not verify a single statement, apparently, in her resume[2] of the newspaper amplification.

Miss Ann M. Bartram, plain Nancy at her Quaker home, the daughter of John Bartram, Jr., heir to the Bartram estate and brother of William, the intimate friend of Wilson; was born on February 15, 1779. "She had brown hair, expressive eyes, was slenderly built, was nearly a blonde, and grew up like a rose in her father's garden," as recorded by the family historian, William Middleton Bartram. "A love of birds and flowers and a keen appreciation of the beauties of nature distinguished Ann Bartram, and her face must have won many an admiring glance as she walked by her father's side in their rambles together after the beauties and mysteries of botany."

Fortunately we have several pen pictures of Wilson at about this period. Horace Binney, an eminent lawyer of Philadelphia, says: "His personal appearance was that of a modest, rather retiring man of good countenance, not decidedly Scotch, but still with a cast of it, rather more like a New England Congregational clergyman in his black dress, than any other description I can give. He was held in great esteem for probity, gentle manners and accomplishments in his special branch of science."[3] Doubtless Charles Robert Leslie's description is a most accurate one; not merely because he also became a celebrated personage, but rather from the aptness of an artistic soul receiving and retaining a correct impression of an individual. "He looked like a bird; his eyes were piercing, dark and luminous, and his nose shaped like a beak. He was of a spare, bony form, very erect in his carriage, inclining to be tall; and with a very elastic step, he seemed qualified by nature for his extraordinary pedestrian

[1] A Romance of Bartram's Garden. Love's Young Dream Shattered by the Action of a Stern Father. Ann Bartram the Heroine. Alexander Wilson Her Choice, but, Against Her Will, She was Compelled to Wed Another. Wilson Died of a Broken Heart.—Philadelphia (Sunday) Press, May 3, 1896, p. 8.

[2] Behind the Wedding Veil, Osprey, Vol. III., 1899, p. 97.

[3] Wilson's Poets and Poetry of Scotland, p. 420.

achievements. Alexander Wilson belonged to a class of men of which Scotland seems to have produced a greater number than any other country—men from the humble and middle classes of life, of poetic minds, lovers of nature, of science, and of art—men of unconquerable perseverance, who succeed at last in acquiring fame, and sometimes fortune, often in despite of the most adverse circumstances in early life." [1]

In a letter to William Bartram dated November 20th, 1803, Wilson writes: " , . . . I have attempted two of those prints which Miss Nancy so obligingly and with so much honor to her own taste, selected for me. I am quite delighted with the anemone, but fear I have made but bungling work of it." The Miss Nancy referred to is the Quaker maiden, Ann Bartram; and when Dr. Coues secured a copy of the Wilson manuscript poem entitled "The Beechen Bower," then in the possession of Joseph M. Wade, it did not immediately occur that it must have been dedicated to Miss Bartram, although her given name appears in the second stanza, and it is dated January 18, 1804.

"O dear to my heart is this deepshaded Bower,
This snug little seat and this smooth Beechen Tree,
These old hoary Cliffs through the bushes that tower
And bend o'er the pool their semblance to see.
The fountains, the Grotto, the Laurel's sweet blossom,
The Streamlet that warbles so soothing and free.
Green solitude! dear to the maid of my bosom
And so for her sake ever charming to me.

"Here seated with Anna, what bliss so transporting
I wish every moment an age were to be.
Her taste so exalted—her humour so sporting,
Her heart full of tenderness, virtue and glee.
Each evening sweet Bow'r round the cliffs will I hover,
In hopes her fair form thro' the foliage to see.
Heav'n only can witness how dearly I love her,
How sweet Beechen Bower thy shades are to me.

[Signed] A. WILSON."

Apparently a premature, if not a presumptive declaration which the author lacked the courage to deliver. Again, under the date of March 29th, in relating his attempts at drawing, he writes " . . . . I am very anxious to see the performance of

[1] Leslie's Autobiographical Recollections, pp. 163-165.

your fair pupil; and beg you would assure her for me that any of the birds I have are heartily at her service. Surely nature is preferable to copy after than the works of the best masters, though perhaps more difficult, for I declare that the face of an owl and the back of a lark have put me to a non plus; and if Miss Nancy will be so obliging as to try her hand on the last mentioned, I will furnish her with one in good order, and will copy her drawing with the greatest pleasure, having spent almost a week on two different ones, and afterward destroyed them both and got nearly in the slough of despond." That he does not exaggerate the diffienlty experienced in delineating the features of an owl is evident from the description Dr. Coues has given: " . . . from the backs and corners of various pieces of paper peer various faces of owls in all stages of incompleteness, showing how he practiced drawing these difficult subjects." Nor did he altogether overcome this fault is evident upon inspection of his drawings of the various species of the owls. Two days later he writes: 'I sometimes smile to think that while others are immersed in deep schemes of speculation and aggrandizement—the building of towns and purchasing plantations, I am entranced in contemplation over the plumage of a lark, or gazing like a despairing lover on the lineaments of an owl. . . . I have live crows, hawks, and owls, opossums, squirrels, snakes, lizards, etc., so that my room has sometimes reminded me of Noah's ark; but Noah had a wife in one corner of it, and in this particular our parallel does not altogether tally." If Miss Bartram taught him the secret of the portrayal of his meadow lark, he proved an apt pupil, for it is beyond reproach. In the same letter he goes on to say: " . . . My dear friend, you see I take the liberty of an old acquaintance with you, in thus trifling with your time. You have already raised me out of the slough of despond, by the hopes of your agreeable conversation, and that of your amiable pupil. Nobody, I am sure, rejoices more in the acquisition of the beautiful accomplishment of drawing than myself. I hope she may persevere. I am persuaded that any pains you bestow on her will be rewarded beyond your expectations. Besides it will be a new link in that chain of friendship and consanguinity by which you are already united;

though I fear it will be a powerful addition to that attraction which was fully sufficient before to make even a virtuoso quit his owls and opossums and think of something else."[1] A very bold hint! To one of his temperament there was no concealment. He spoke and wrote as he thought. His next letter written at the Union school, May 22nd, 1804, as usual contains a message for the niece: ". . . . Mrs. Leech requests me to send Miss Bartram two birds, and thinks they would look best drawn so that the pictures may hang their length horizontally. I send a small scroll of drawing papers for Miss Nancy. She will oblige me by accepting it."[2] Soon there appeared in the Literary Magazine a poem descriptive of Bartram's garden and its inhabitants, which Wilson has entitled "A Rural Walk," and dated from Gray's Ferry, August 10th, 1804, of which the following is an extract:

"One flower, one sweet and faithful flower,
Worth all the blossom'd wilds can give;
Forsakes him not thro' seasons lour
Tho Winter's roaring tempests rave.

But still with gentlest look and air,
Befriends his now declining years;
By every kind officious care,
That Virtue's lovely self endears.

When Science calls, or books envite,
Her eye the waste of age supply;
Detail their pages with delight,
Her dearest uncle list'ning by.

When sorrows press, for who are free?
Her generous heart the load sustains;
In sickness none so kind as she,
To soothe and assuage his pains.

Thus twines the honeysuckle sweet,
Around some trunk decay'd and bare;
Thus angels on the pious wait,
To banish each distressing care.

[1] Ord's Life of Wilson.

[2] Darlington's Memorials of John Bartram and Humphrey Marshall.

[1] Literary Magazine, Vol. II, 1804, pp. 533-536.

O happy he who slowly strays,
On Summer's eve these shades among;
While Phœbus sheds his yellow rays,
And thrushes pipe their evening song.

But happier he, supremely blest,
Beyond what proudest peers have known;
Who finds a friend in Anna's breast,
And calls that lovely plant his own."

Wilson was soon to be awakened from his pleasant dream of domestic felicity. Notwithstanding the Bartram family being Friends, they boasted a coat of arms and were justly proud of their lineage and of their beautiful estate upon which so much care and taste had been lavished. When the father said "Mr. Wilson is my friend, but not my choice for my daughter's husband," there was little thought of rebellion, for "Honor thy father and thy mother that thy days may be long upon the land that the Lord thy God giveth thee," in the simple form of worship in which the daughter had been reared, was firmly engrained. It doubtless required but a gentle hint on the part of the father to the sensitive Scotchman, to cause an entire abandonment of his aspirations in that quarter, before the affair had progressed very far; and that he finally died of a broken heart as the anonymous writer would have us believe, is absurd.

This must have occurred a little while previous to his trip to the Niagara Falls in October, perhaps it occasioned it; resulting in the composition of his longest poem, "The Foresters." Coues advises every one to read this narrative, not as a poem (poets do not walk from Philadelphia to Niagara Falls and back in the late fall) but for the interesting facts it contains. Henceforth in the cordial relation existing between Wilson and Bartram, the old fashioned pet name of the niece is no longer penned. Soon after his return from the twelve hundred mile tramp, he writes to Bartram in a letter dated December 14th, 1804, " . . . With no family to enchain my affections, no ties but that of friendship; and the most ardent love for my adopted country—with a constitution which hardens amidst fatigue; and a disposition sociable and open, which can find itself at home by an Indian fire in the depths of the woods, as well as in

the best apartments of the civilized; I have at present a real design of becoming a traveler." Poor Wilson! He seems as little fitted financially for travel as for marriage, for he confesses to a capital not exceeding 75 cents!

Once more referring to Wilson's letters to his good friend Bartram, of July 2nd, 1805, he records a resolve from which there was no deviation until his death. "I dare say you will smile at my presumption when I tell you that I have seriously begun to make a collection of drawings of the birds to be found in Pennsylvania or that occasionally pass through it; twenty-eight, as a beginning, I send for your opinion. . . . *They may yet tell posterity that I was honored with your friendship, and that to your inspiration they owe their existence.*" [1]

A prophesy! No more misdirected efforts. No further striving for the unattainable, but, quoting Coues: "Emerging from obscurity by an indomitable perseverance that fairly beat bad luck out of the field, the 'smoky flux' of his mysterious genius at length burst into flame that made his life luminous." [2] Therefore, notwithstanding the opinions and declarations of his biographers as quoted at the beginning of this paper, the opposite sex had a very material and unexpected influence in the realization of his dreams of fame. It is more than hinted that unrequited love was not the least of his reasons for emigrating to America; the same not incurable malady caused him to turn to drawing and ornithology for relief; and his third unsuccessful venture placed him in the position to dedicate his life to that all absorbing pursuit and the publication of the "American Ornithology" upon which his right to fame chiefly rests. On November 29th, 1805, he sends Bartram a proof sheet of his first plate etched by himself and requests that he "be so good as to communicate to me your own corrections, and those of your young friend and pupil. I will receive them as a very kind and particular favor." Again on May 22nd, 1807, a request is made through the uncle to the niece: "By the impressions of my two plates that accompany this you will see that I

[1] Ord's Life of Wilson.

[2] Private Letters of Wilson, Ord and Bonaparte, Penn Monthly, 1879, p. 443.

have a request to make to Miss Bartram, if the state of her health will permit. We want well colored specimens of the plates to be sent to Boston, Charlestown, New York, etc., and as my time will not permit me to do them myself I have presumed to apply to her to color the impressions that accompany them, for which I shall make any returns. Perhaps Mary Leach might be set to some parts of them with safety, which would lessen the drudgery. If this request should be considered disagreeable you will not, I am sure, impute it to any motives but those of the highest esteem of those to whom I make it, and the impressions may be returned tomorrow by any safe conveyance with perfect good nature on both sides."[1]

I had the pleasure of examining a brief manuscript note in the possession of the Pennsylvania Historical Society, dated August 28th, 1808, detailing the result of some experiments on the "Grandaddy Long-legs," on the morning of the 28th of March, 1808, in the presence of Mr. William Bartram and his niece, Miss Ann Bartram; also a letter dated July 9th, 1811, from the Bartram garden, introducing his friend, Major Carr, to George Ord;[2] which serve to show the perfect good will and understanding existing between Wilson and the members of that family. For, without haste or compulsion, Miss Bartram married Robert Carr, the well-to-do Second street printer, in March, 1809, who became a resident of the botanic garden, devoting himself with great care and interest to the preservation of the collection, of which there were 2,000 species of our native productions contained in a space of six acres; until he being in his declining years and their son having died, they became anxious to retire from the nursery business and offered to surrender the property to Andrew M. Eastwick, who held a mortgage of $15,000 against it, and who afterward, until his pecuniary embarrassment during the civil war, took the most jealous care of that most historic spot. Mr. Carr was conspicuous in the local militia, became an officer in the United States

[1] Stone's Some Unpublished Letters of Alexander Wilson and John Abbott, Auk, Vol. XXIII, 1806, p. 362.

[2] Grosart's Memoir and Remains of Alexander Wilson, Vol. I, pp. vi.-vii, and xlvii.

army during the second war with England, and was for some time adjutant general of the state, with the title of colonel. Mrs. Carr lived until October 30th, 1858.[1]

The susceptible Wilson subsequently became engaged to a Miss Sarah Miller of Winterton, and a letter from him to her, while on his western trip in 1810, has been preserved, showing little of the ardent lover of earlier days. He writes in part: "Nine hundred miles distant from you sits Wilson, the hunter of birds' nests and sparrows, just preparing to enter on a wilderness of 780 miles—most of it in the territory of Indians—*alone*, but in good spirits, and expecting to have every pocket crammed with skins of new and extraordinary birds before he reaches the city of New Orleans. I dare say you have long ago accused me of cruel forgetfulness in not writing as I promised, but that I assure you, was not the cause. To have forgotten my friends in the midst of strangers, and to have forgotten *you* of all others, would have been impossible. But I still waited until I should have something very interesting to amuse you with, and am obliged at last to take up the pen without having anything remarkable to tell you of." The fact was that his "American Ornithology" had become his chief love; he had learned to wait complacently upon prosperity before the consummation of matrimony, and we all know the end; his fiancee, in conjunction with George Ord, became his executrix at the time of his death in 1813.

[1] Harshberger's Botanists of Philadelphia and Their Work.

AUGUST NOTES FROM A WATERING PLACE.

BY ALTHEA R. SHERMAN.

Having a blind about three hundred feet from our house, I have spent many hours in it, watching the passing show. It faces a spot in a very wet meadow—which possibly may be considered a swamplet—where a row of willows crosses the water-course at a distance of thirty feet from the blind.

Here the rails come to preen and sun themselves; the first Sora of this summer having been seen on July 19, and the first Virginia on August 1. Accessions to their numbers may be found almost any morning after a foggy or rainy night. At first they may be a little more timid than later in the season, but in autumn months before the blind was built I have sat in full view of them without apparent check upon their movements, and they have not stirred when a friend has walked along and stopped to talk about them. On the farther side of the willows is a rank growth of saw-grass, so dense that in the summer months the rails are never seen to penetrate it, but they pass up and down the watery paths picking their food from the shallow water or along its banks. Easily seen is the fact that the adult Sora is the master rail, driving the Virginia before him as he darts in hot pursuit into the rank growth of weeds and grasses. From aeons of living in fens and boggy places with his domineering cousin the Virginia Rail may have acquired the startled, grotesque gait that he takes when after standing in dignified attitudes for several minutes he suddenly rushes off, as if he had seen a frightful apparition. Among themselves the young Soras are quite playful, but still more sportive are the Virginia Rails. With a cry two or three of them will bound into the open space under the willow trees, suggesting the advent of clowns upon the stage, and will chase each other about, shaking their wings and flying from the ground for a foot or two in a very amusing manner. They are something of acrobats, too, as one is sometimes seen to mount to the top of a fence-post or to the branch of a willow until five feet or more from the ground. Among these the

King Rail is an infrequent visitor, and a hope is cherished that some day there may be seen the Yellow and the Little Black Rail.

So far as known the nesting data of the Red-winged Blackbird for August were nearly the same for last year as for this. On the first day of the month in each year there remained two occupied nests, in one of which the birds were just ready to leave. In the former year the nestlings were deserted, either because the mother was killed or she was seized with the wanderlust and left them to follow the rest of her tribe, all of which had departed except the owners of the other occupied nests. This year there was a flocking of Redwings in the meadow. So unobtrusive was their coming that one scarcely realized that a hundred or more of them were present, except when the arrival of a Marsh Hawk or some other disturbing element brought them up into the air. The flock did not remain for the night, but a little before and after sundown the birds in companies of twenty to forty would fly eastward, perhaps to some island in the Mississippi River. In the morning they came drifting in, a few at a time.

The month has not been without its bird music. Of fifteen species observed in a half hour early on August 5, eleven were heard singing or giving their call notes. Famous singers have given a series of farewell concerts. Almost every day, with surprising regularity, an hour or two before noon, from a dozen to a score and a half of Bobolinks have gathered in the willow trees and have sung together. There is little suggestion of the rapturous solos of June in their twittering music. It, like their plumage, has undergone a great change. This year a decided decrease in many of the species has been observed, but the greatest has been among the Bobolinks that in the spring were no more than a third as numerous as in recent years.

When the House Wren has a brooding mate near he may rival the Song Sparrow in the number of songs delivered each day, but the most tireless singers of them all is the Short-billed Marsh Wren, whose rattling little ditty may be heard every hour of the day and night. Upon him and the Screech

Owl we must depend for all our August nocturnes. This Marsh Wren sings from any foothold, be it grass-stem, bush, or portions of a fence. He often is seen sitting upon the top of a fence post for many minutes rendering his little songs, and it has been possible to approach within seven feet of him without his omitting a single number. Once when his meadow was being mown he was seen clinging to the last upright grass-stems, keeping just in advance of the moving horses, and all the time he sang. One day early in the month he was caught building one of his dummy nests. As he came up from his nest he sang, flew fifteen feet to his supply-place for material and sang again: thus he passed back and forth, working and singing with unabated energy.

A watering-place, as a favorite resort, does not meet the popular standard unless it has a summer flirtation. This was furnished by a frivolous Flicker that kept two males, sometimes four drumming and bowing and dancing before her all through July, and into August, although these birds were well along in their moult. Two of the courting males are believed to be the same that roost in our barn, and it is one of the evening tasks to see if these lodgers have come in punctually.

Here, in northeastern Iowa, it is not until August that many of the species settle upon some place for their regular roosts for the remainder of their stay in the north. The Catbird and Brown Thrasher every season come into the lilac and snow-ball bushes to spend the night. The Kingbird, with his family, returns to a spruce tree that has been their nesting site for many years. Phœbe finds shelter in the maples along with the most brilliant lodgers of all, four merry Orioles, which, sometimes accompanied by two young birds of the year, come in at night whistling gayly, and depart in the morning in the same tuneful fashion: but no Lady Baltimore is to be seen with them. The birds that retire the earliest and are the last to go out in the morning are the Flickers, three of which roost in the barn. They usually come in about a half-hour before sunset and start out a little after sunrise, but occasionally their hours are much earlier and later. For several apparently good reasons it is believed that the Flicker that oc-

cupies a handsome apartment in the "West End" is the same bird that has roosted there for three summers: that returned to roost in the barn last April: that was ardently courted by two females in the latter part of that month: that in an elegant home on the "South Side" helped to rear a family of six with a devotion worthy of any father, be he bird or human. It is likely, that he and the other Flicker lodgers are some of this species that have been raised in the barn in the years that have passed. The maintenance of their rights to their own quarters was exemplified by an unusual performance in the second week of the month, when one evening the flirtatious female, followed by three or four male Flickers, arrived and began calling. Soon the owner of the hole in the west end of of the barn retired to it. The female, standing on the projecting edge of the roof, seemed to call to him repeatedly before she flew away. There were signs of an approaching rain the next evening when the female arrived first of all. From the roof's edge she inspected the hole then flew to it, went in and comfortably settled herself before the owner arrived. He flew straight to the hole, and without parleying, entered, and in about three seconds the shrieking female flew out and sought a roost in a neighboring tree.

Last year ninety-seven species of birds were identified about our house, and the blind scarcely one hundred yards away. Of these forty-seven species were observed from the blind during August. Although the smallest number recorded as present on any day was sixteen, and the highest thirty-one, the daily average for the month has been twenty-two species. Among these an unusually early migrant was a Purple Finch, first seen August 23; also seen on two days following.

A very rare visitor was a Blue-gray Gnatcatcher which came on the last morning of the month. In fact it was the first of the species ever identified on our grounds, and is rarely met with in the woods in this locality. Of the warbler family the first to arrive from the north was the Grinnell Water-Thrush, on August 14, and its departure will be the last of September, just as the Swamp Sparrows begin to come. A pecuiarity in its spring and fall movements has been remarked for several

seasons. In the spring it keeps closely to the low ground never but once having been noted in the orchard on the hill, while in the fall migration it is to be found frequently in the trees and shrubbery near the house as well as among the willows at our watering-place.

NOTES ON THE HENSLOW'S SPARROWS (*Ammodramus henslowii*) IN MAHONING COUNTY, OHIO.

BY EARNEST W. VICKERS.

In July, 1907, I discovered that we had suffered an invasion of Henslow's Sparrows at Ellsworth Station, Mahoning County, Ohio, where for almost ten years I have carried on bird observations.

On July 14, while haying in a 14-acre meadow of very heavy upland grass, the fact suddenly dawned on me that a new sparrow voice was all about, and to be heard above the rattle of the hay wagons, and clatter of loader, tedder and other noisy hay-making machinery.

It occurred that I had heard the strange voices for several days, but I was unable to say how long. The shrill, quaint cry sounded like "tis-zeek, tis-zeek," accented on the last syllable, sometimes changed to "tip-see, tis-zeek."

There was a ventriloquial quality about it, for it seemed to be equally remote and near, like the thinner strain of the Grasshopper Sparrow, which I had first observed for Ellsworth in 1895.

When one of these newcomers at length revealed himself, he proved one of the most nervous, excitable of birds and would crouch down and rise up as if about to take wing after the manner of the Meadowlark, turn round and round, all nervous and fussy at being approached, giving utterance to his sharp and characteristic call. I spent several evenings with them after work and secured three males highly developed sexually. There were from nine to twelve males in this single meadow, and examination of neighboring fields revealed no more.

The calling birds probably represented so many pairs.

When the grass was finally cut they took to the adjoining wheat stubble where the stocking was growing rankly, and where, perched on the shocks they afforded excellent opportunities for observation. But with the removal of the wheat they disappeared or dispersed over surrounding fields and pastures.

The strain, or call, is very different in character, and not to be confused with that of the Grasshopper or Yellow-winged Sparrow—less of a song than an outcry of complaint or alarm.

To Mr. George L. Fordyce, of Youngstown, belongs the honor of first recording the Henslow Sparrow for Mahoning County, in Boardman Township, April 30 and May 1, 1907, but it failed to return to his territory this year. It is of interest to note in passing that this irregularly distributed sparrow should have been observed at two points so far apart in one county, there being the space of about two townships between our two stations for it. How interesting it would be if ornithologists were so thick over the land that the circles of their peripatetics intersected: then we would be able to know whether the movement of a bird like the Henslow Sparrow took the form of a wave or only occurred in streaks. The spring of 1908 I recorded its first reappearance on April 23, saw it again the 24th, and called it "common" the 26th, when I saw it at several widely separated points in Ellsworth Township. Singularly enough it was more abundant in a field almost a mile east of the one wherein it was discovered in July, 1907. Indeed, in the latter field, but few were noted this year. Since its reappearance the past spring, it has been observed every month up to this writing; and although it doubtless breeds in Ellsworth, quite a little systematic search failed to disclose its nest.

After its arrival, ere the grass had grown thick enough to provide sufficient hiding, it was interesting to fix the eyes on the distant point where a Henslow had dropped down, and stalk it. Thus, by working carefully and slowly, I got within three or four feet of one several times, as it crouched ready to spring into flight, motionlessly regarding me. I could note the interesting pattern of its sparrow coat, the quick heaving of its breast and the twinkle of its clear bright eye, and I even tried to clap my hat over it—I had no salt—but it just escaped, and

I could, in all likelihood, have taken it in an entomological net. The intricate underworld of thick grass is its home; there it may skulk or pause to scold the passing stranger in safety, or rise from his very feet to drop into the green sea but a few rods distant. Out of its grassy element this sparrow is as uncomfortable as a fish out of water. For this reason it is easier to hear his high-pitched strain than to catch a glimpse of him.

Late in July of a heavily-clouded evening at about 9 o'clock and consequently almost dark, I passed the haunt of a Henslow Sparrow, and promptly the shrill "tis-zeek!-tis-zeek!-tip-see-tis-zeek!" greeted my approach and followed me quite out of ear-shot.

WINTER NOTES FROM DETROIT, MICHIGAN AND VICINITY.

B. H. SWALES.

DOUBLE-CRESTED CORMORANT (*Phalacrocorax dilophus*).

On January 8, 1908, I watched a cormorant swimming near my place on Grosse Isle. Upon seeing me it rose heavily from the river, and flew slowly, with repeated flappings, down the river. To date there had been practically no ice on the river.

CANVAS-BACK (*Aythya vallisneria*).

During the winter of 1905-1906 a small flock of some twenty Canvas-backs remained throughout the winter near the mouth of the Detroit river. These fed generally in a large air hole, and from time to time one was shot by residents. During the winter of 1907-1908 a much larger body remained, feeding well out into Lake Erie, as there was no ice to speak of until about the first of February. This flock was estimated as high as three hundred birds.

CANADA GOOSE (*Branta canadensis*).

On May 8, 1907, I watched for some little time a flock of forty-two Geese that flew over Grosse Isle, going eastward. These Geese were honking loudly and flying extremely low. My previous latest spring record was April 30, 1905. During

the winter of 1905-1906, a resident of Hickory Island, in the lower Detroit River, told me that a flock of ninety Geese remained all winter. They kept well out into Lake Erie, were very wary, and none were secured by the gunners.

AMERICAN BITTERN (*Botaurus lentiginosus*).

Albert Gardner wrote me at various times during the winter of 1906-1907 of a Bittern that wintered at Pt. Pelee, Ont., and which he saw on nearly all his visits to the marsh. The bird could fly, and appeared to be uninjured.

GREAT BLUE HERON (*Ardea herodias*).

L. J. Eppinger, the Detroit taxidermist, received a bird of this species in February, 1903, which a friend had shot near Lake St. Clair, Macomb Co. He had been out rabbit hunting, the ground was deeply covered with snow, and the day so cold that the bird was frozen stiff before the hunter reached his home. The winter of 1902-1903 was the most severe one in this section in many years; the snow fell in November and remained until March. It is a mystery as to how this bird could eke out an existence until as late as February in the frozen marshes. It was, of course, extremely poor and emaciated.

KING RAIL (*Rallus elegans*).

The occurrence of this species in winter is certainly exceptional. On February 6, 1907, Taverner and I examined one that came into L. J. Eppinger's shop, which had been taken recently near Detroit. The bird was in extremely poor condition, as might be expected. A second occurrence is reported by Albert Gardner, of Pt. Pelee, Essex County, Ont., who wrote me at different times during the winter of 1906-1907 that he had seen one of these birds in the extensive marsh there. He said that it was apparently in good condition, as it readily took flight when closely pressed. The winter up to February was generally a mild one, the mean temperature for December (Detroit, Mich.) being 29°, January 26, and February 21.

KILLDEER (*Oxyechus vocifera*).

Mr. Jas. B. Purdy wrote me that he saw a Kildeer on his

farm near Plymouth, Wayne County, from December 25, 1907, where it was first noticed, throughout the month of January, after which he failed to notice it. I have no other records of this species' occurrence in winter.

BELTED KINGFISHER (*Ceryle alcyon*).

One was reported to me by Jas. B. Purdy on January 6, 1907, near Plymouth, which remained in the vicinity for several days.

EVENING GROSBEAK (*Cocothraustes vespertinus*).

One was taken December 30, 1905, by A. J. Long near Detroit, and came into Campion's shop, where I saw it. I know of no others being seen during the winter of 1905-1906.

TOWHEE (*Pipilo erythrophthalmus*).

Jas. B. Purdy saw a female at Plymouth on January 29, 1905. I believe this is the first bird of this species that I can recall that has wintered in Wayne County.

CORRECTION.

Historical articles like those of Mr. Burns in recent numbers of the WILSON BULLETIN are always interesting reading and therefore ever welcome. In historical articles more than anywhere else, perhaps, accuracy in details is to be desired, and yet nowhere else do we more easily fall into unintentional misstatements. In the interests of accuracy, therefore, I beg to correct a few errors in "The Mystery of the Small-headed Flycatcher." *

Mr. Burns states that the unique specimen of Townsend's Bunting was taken by Dr. Ezra Michener. He was, it is true, the subsequent owner of the specimen, but it was secured by J. K. Townsend after whom it was named (cf. Baird, Cassin & Lawrence, Birds of N. A. p. 496.)

Mr. Burns includes the occurrence of the Summer Tanager in southern New Jersey among "conditions well recognized today." The bird has only been reported "seen" in southern

* Wilson Bulletin, June, 1908, pp. 63-99.

New Jersey once or twice in the last fifty years, and there are no records of captures.

Apparently misled by a statement of mine in the *Auk*, 1899, Mr. Burns states that but two of Alexander Wilson's types are extant. A number of others were discovered some years since in Boston and I think the fact has been published, though I do not at this moment recall the place of publication. The fire to which Mr. Burns refers was not at Peale's Museum but was at P. T. Barnum's Museum in New York City where part of Peale's collection was preserved. There is no record, however, of any of Wilson's birds having been secured by Barnum.

The Trumbull referred to by Mr. Burns should be Wm. P. Turnbull, and P. B. Hay should be P. R. Hoy, both printer's errors, no doubt.—Witmer Stone, Acad. Nat. Sciences, Philadelphia.

I very much appreciate Mr. Stone's friendly criticisms. No one can be more desirous of eliminating seeming or real errors in statements than I. Writers attempting biographical or historical subjects are peculiarly dependent upon the observations of others, the acceptance or rejection of much being a matter of personal judgment, and disagreements not infrequent.

I can scarcely plead ignorance to a knowledge of the fact that Townsend shot the bunting bearing his name. My note, perhaps, should read "taken for Dr. Ezra Michener," as less liable to misinterpretation. The bird was killed in his own neighborhood expressly for his cabinet, received almost immediately, and a brief description of the specimen while in the flesh, written by him on the day of the capture. He even states in his diary "We have given it the provisional name of *Euspiza albigula,* or white-throated bunting." (Cf. Insectivorous Birds of Chester Co., Pa., 1863.) I can see no impropriety, however, in accrediting the bird to the person responsible for all of the facts of the case, as well as being the original owner and for a great many years, up to the time he presented it to the Smithsonian Institution, the conservator of this valuable specimen.

The Summer Redbird may be, at the present time, extremely rare, or extinct in the region referred to. Our bird men have given the land birds of the southern interior only a desultory attention. My comment should not be taken as an indorsement of the entire quotation from Wilson. That the conditions existing at the present time in certain parts of New Jersey are more favorable to a richer southern bird life than southeastern Pennsylvania can offer, Mr. Stone testifies in his Summer Birds of the Pine Barrens of New Jersey. (Cf. Auk, Vol. XI, p. 134.)

From a very reliable source I learn that the Peale collections occupied a commodious building at Ninth and Samson streets in 1838. It was to be known thereafter as the Philadelphia Museum, but it was built and managed by members of the Peale family. The enterprise of the Peales was marvelous and the city owes much to that name; but at last they had overreached themselves, for after a struggle of about six years they were obliged to dispose of a part of this great collection; portions going to Boston, Baltimore, and to Barnum for his Philadelphia and New York museums. An effort was made to continue to exhibit the better portion remaining, in Masonic Hall, which also came to be known as the Academy of Fine Arts and Peale's Museum Theatre, on Chestnut street, between Seventh and Eighth; in August, 1846, by John Sefton, but it was closed in July, 1847. The large collection of Peale portraits was not disposed of until 1854. The Peale or Philadelphia museum building at Ninth and Samson burned down the same year. Barnum's museum, a large five-story building at the southeast corner of Seventh and Chestnut streets, had been reduced to ashes three years before. The loss on collections and fixture was stated to have been $50,000. (Cf. Scharf and Westcott's History of Philadelphia.) Mr. Stone has already stated how Barnum's museum in New York city was destroyed. It is to be hoped that we will have further enlightenment in relation to the Wilson types discovered in Boston.

As Mr. Stone infers, the last are typographical errors; Wm. P. Turnbull being correctly cited in the References.

FRANK L. BURNS.

THE WILSON BULLETIN

A Quarterly Magazine Devoted to the Study of Living Birds.
Official Organ of the Wilson Ornithological Club.

Edited by LYNDS JONES.

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EDITORIAL.

That the malady of lateness of issue has become cronic with the Bulletin must seem apparent to every reader. Assurances may be received that it is not a fatal malady, and that a permanent cure may be effected by the application of the specific of prompt contributions. We can promise the next issue to readers not later than the Christmas holidays.

In succeeding numbers of the Bulletin, probably not beginning until the March, 1909, number, a list of the birds which occur on the Ohio shore opposite to Point Pelee will be given running along the lines of the Point Pelee list which closes with this number. Such carefully worked-out lists, with full annotations, will be welcomed by the editor from almost any locality, which is either representative of a large region or is possessed of special features in small compass.

Many publications relating to birds have reached the editor's desk which he has not been able to review, on account of other pressing duties. He wishes to express to all such friends his hearty appreciation and intention to fully review the papers in this Bulletin as soon as possible. Among these publications Mr. Ora W. Knight's book on the Birds of Maine is the most sumptuous.

The falling of the autumn leaves will lay bare many nesting secrets which the dense foliage has hidden. A very useful piece of field work would be to go over some selected area carefully and count the nests in that area, noting the numbers of each species separately. This would give a more accurate nesting bird population than by any other means, and would be far easier than an attempt to count the birds themselves. Of course it would be nothing more than an approximate estimate, because many items enter into the problem which might modify the final result. Some sort of enumeration of the birds of any region which is to be studied for any considerable length of time is necessary. This is a relatively easy method, and can be made to approximate accuracy for the breeding birds. Try it.

FIELD NOTES.

THE SPRING MIGRATIONS AT OBERLIN, OHIO, 1908.

In general the migrations were nearly normal. There were a few unusual things, fortunately for my enthusiasm. The most notable were the appearance of White-eyed Vireo and Olive-sided Flycatcher at Oberlin as well as at Cedar Point. The bird waves were as follows:

March 2-6: Prairie Horned Lark, many migrating and singing. Snowflake, common everywhere. Am. Crow, common everywhere. Am. Robin, first migrants. Meadowlark, first migrants. Red-winged Blackbird, over a hundred migrants. Killdeer, 7, the first. Bluebird, 6 migrants. Bronzed Grackle, many.

March 9-12: Firsts, Fox Sparrow, Baldpate, Redhead, Greater Scaup, Am. Coot, Turkey Vulture, Belted Kingfisher, and a considerable influx of Bluebirds. Robins, Meadowlarks, Lesser Scaups, and Grackles.

March 16: Migrant Shrike, Whistling Swan, Rusty Blackbird, Field Sparrow, Swamp Sparrow, Yellow-bellied Sapsucker, Pintail, all firsts.

March 23: Vesper Sparrow, Phœbe, Pied-billed Grebe, Great Blue Heron, all firsts. Those listed for the 16th increased considerably.

March 28-April 3: Broad-winged Hawk, Am. Rough-legged Hawk, migrating; firsts, Chipping Sparrow, Savanna Sparrow, Hermit Thrush, Blue-winged Teal, Am. Bittern, Barn Swallow, Tree Swallow, Shoveller, Canvas-back, Brown Thrasher, Ruby-crowned Kinglet, Horned Grebe.

April 11-14: Sora, Wilson's Snipe, Purple Martin, Spotted Sandpiper, Yellow Warbler, Blue-gray Gnatcatcher, Olive-backed Thrush, Bank Swallow. Bartramian Sandpiper arrived on the 9th.

April 20: Virginia Rail, Long-billed Marsh Wren, Wood Duck, Green Heron, Osprey, Rough-winged Swallow, Whippoorwill, Palm

Warbler, House Wren, White-throated Sparrow, Myrtle Warbler, Loon. It is possible that this wave spilled over to the 24th, with Chimney Swift and Grasshopper Sparrow on the 22d, and Wood Thrush, Oven-bird, Bobolink, Greater Yellow-legs and La. Water-Thrush on the 23d, and Red-headed Woodpecker and Blue-headed Vireo on the 24th, all as firsts.

April 26-27: Baltimore Oriole, Lark Sparrow, Catbird, Indigo Bunting, Yellow-throated Vireo, Solitary Sandpiper, Blue-winged Warbler, Black-throated Green Warbler, Black and White Warbler, Northern Yellow-throat, Red-eyed Vireo, White-eyed Vireo, Ruddy Duck, all firsts. There was also an influx of recent arrivals.

May 4-7: Florida Gallinule, King Rail, Common Tern, Caspian Tern, Least Bittern, Am. Pipit, Pine Warbler, White-crowned Sparrow, Black-throated Blue Warbler, Nashville Warbler, Orchard Oriole, Warbling Vireo, Wood Pewee, Wilson's Thrush, Scarlet Tanager, all firsts.

May 11-16: Least Flycatcher, Rose-breasted Grosbeak, Warblers as follows: Chestnut-sided, Golden-winged, Magnolia, Blackburnian, Tennessee, Bay-breasted, Mourning Prairie, all on the 11th; Cerulean, 12th; Black-poll, Northern Parula, Wilson's, Kentucky, Canadian, 14th; Kingbird, Philadelphia Vireo, Redstart, Chat, Lincoln's Sparrow, Black Tern, Hummingbird, Yellow-legs, Cliff Swallow, Crested Flycatcher, Black-billed Cuckoo, Henslow's Sparrow, all on the 12th; Green-crested Flycatcher, Gray-cheeked Thrush, Yellow-bellied Flycatcher, on the 13th; Yellow-billed Cuckoo, Black-bellied Plover, Alder Flycatcher, Turnstone, Nighthawk, on the 16th.

Then there were dribbles: Olive-sided Flycatcher, Connecticut Warbler, Piping Plover, on the 18th, and a Hooded Warbler on the 20th.

By the 22d most of the migrants were gone. A Magnolia Warbler was here on the 28th of May, and a Purple Finch on June 6.

LYNDS JONES.

MYRTLE WARBLERS IN NORTHERN WISCONSIN IN JANUARY.—Mrs. Leeland L. Gibbs, of Antigo, Wisconsin, writes that a flock of about a dozen of these birds were found in that vicinity in January. During the stay of the birds the temperature was below zero for several days at a time. Mrs. Gibbs has never before known of the occurrence of the Myrtle Warbler in Wisconsin in winter.—(Ed.)

WHITE-EYED VIREO (*Vireo noveboracensis*) IN NORTHERN OHIO.—Along with several other birds of southern distribution in Ohio, this one ranges to Lake Erie in the eastern counties, but has not hitherto been found in the northwestern parts of the state. On April 27 and May 4 one was seen on the Cedar Point sand spit, and on April 29 one in the woods a mile south of Oberlin. One captured was a female. These constitute the first Lorain and Erie county records.

LYNDS JONES, *Oberlin, Ohio.*

NOTES ON THE NESTING OF BEWICK'S WREN.—I had seen Bewick's Wrens nesting in southern Ohio several years ago, but the first time I ever observed them nesting near my old home in middle western Ohio,—one hundred miles farther north,—was in the spring of 1908. Here, during the month of April, a pair built a nest upon a board above a door in a small building near a dwelling-house. The nest was composed of twigs, weed stems, dead grass, insect cocoons, leaves, and fragments of a cast-off snake skin, lined with horse-hair and feathers. This is the first time I ever saw any nest that contained pieces of a snake skin, except that of a Crested Flycatcher. The male bird helped in the building. During the latter days of April, six eggs were laid, and after sixteen days of incubation these were all hatched. The young were fed upon worms, larvæ, moths, and spiders.

During the summer, the pair built another nest in a nearby shed, in which they successfully reared a second brood. The second nest contained no fragments of snake skin.

G. CLYDE FISHER, *Sidney, Ohio.*

SWAMP SPARROW AT CANTON, OHIO.—Each summer since 1903 I have noted the presence at Canton of the Swamp Sparrow (*Melospiza georgiana*) at various points in the lowlands along the west branch of Nimishillen creek.

For several seasons I searched unsuccessfully for a nest. June 4th last, however, while in one of these places I noticed Swamp Sparrows carrying food, and after a little hesitation, apparently on my account, diving suddenly into a thick growth of flags.

The spot was marked carefully, and a little search revealed the nest. It contained three young and was well concealed in a rank growth of swamp grass and flags, situated well down near their roots and but a couple of inches above the surface of the water of a brooklet which flowed beneath.

The parent birds did not appear greatly perturbed by my presence. They merely hung around at a short distance and patiently watched. Four days later the nest was again visited, and after opening the rank growth I found the nest intact but the young birds gone. Judging from their size at the first visit they must have met their fate at the hands of some devouring enemy. The nest, with one unhatched egg remaining, was taken home, while the pleasure of finding the nest of a species which Dawson states breeds but casually in Ohio, was somewhat marred by conjecture as to the fate of the late tenants.

From the number of Swamp Sparrows I see and hear each summer in the localities mentioned above and in a swamp bordering Meyer's Lake, it seems evident that this sparrow breeds regularly and in considerable numbers in the vicinity of Canton.

Canton, Ohio. EDWARD D. KIMES.

Photo by S. E. Robertson.

Mississippi Kite (*Ictinia mississippiensis*).

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NOTES ON THE NEST AND EGGS OF THE MISSISSIPPI KITE (*Ictinia mississippiensis.*)

BY DR. R. W. SHUFELDT.

It is interesting to note sometimes how in the case of common birds the descriptions left us by the older ornithologists as compared with the more modern writers on the subject vary in the matter of detail.

There is a good example of this to be found in the case of the Mississippi Kite, a bird known to naturalists in this country for many years.

Wilson left us no account either of the nest or the eggs of this species, though he promises both will be forth-coming in a future volume of his work. We find in T. M. Brewer's edition of Wilson's American Ornithology (1852), a *Synopsis of the Birds of North America*, where this Kite is listed as *Falco plumbeus* Gmel. (Subgenus *Ictinia*), and it is said of it that it "Nests in high trees. Eggs, three, light green, blotched with deep chocolate brown, globular." (p. 685.) By "globular" it is fair to presume that either Brewer or Audubon meant *round*, or else subglobular or nearly globular would have been stated.

In fact in his *Birds of America* the latter ornithologist does slightly modify this description when describing the eggs of this bird when he says that they number "two or three, almost globular, of a light greenish tint, blotched thickly over with deep chocolate brown and black."

Here we note two slight departures from the information he imparted to Brewer:

Ridgway in his *Manual of North American Birds* (p. 225), when referring to the nest and eggs of this Kite states: "Nest in tops of trees, usually near rivers. *Eggs* 2-3, 1.63 x 1.32, white usually sparsely and very faintly marked (adventitiously stained?) with pale brownish." The measurements given show that he did not consider the eggs to be globular in form, while, on the other hand, he was evidently in doubt as to whether these eggs were not entirely white, and such markings as occur upon them being adventitious. This description is entirely at variance with Audubon's, given above.

As late as 1884, Coues in his *Key to North American Birds*, apparently distrusted all former descriptions of the nest and eggs of the Mississippi Kite, and had never seen either himself, for he briefly states there: "Nest of sticks, etc., eggs?" In the fifth edtion of the same work he enlarged upon this considerably for he there records: "Nest of sticks, etc., in trees, either deciduous or coniferous, at various heights, 20-60 feet; eggs 2-3, 1.65 x 1.35, pale glaucous, normally unmarked, but often with some faint spots or stains; laid in April, May, or June. (*Ictinia subcærulea*) (Bartr. Coues), 2nd–4th Ed. 1884–90. p. 524. p. 656.

This description is probably nearer the mark, though it is likely we would not have to wade very far again into the literature of the subject to meet with others essentially quite different.

Mr. S. Emmet Robertson formerly of Dallas, Texas, now of New York City, has presented me with an unusually fine photograph of the nest and an egg of the species here being considered taken by himself and he has kindly permitted its use in the present connection.

ALEXANDER WILSON.

IV. THE MAKING OF THE AMERICAN ORNITHOLOGY.

BY FRANK L. BURNS.

A nature lover from childhood, though placed at a trade at the early age of thirteen, Wilson probably learned a little, but not a great deal, more of the local avian fauna, than the average native sportsman. Immediately upon landing in America, at Newcastle, Delaware, July 14th, 1794, he shot the first bird that presented itself, a Red-headed Woodpecker, and he thought it the most beautiful bird he had ever beheld. On his way to Philadelphia curiosity prompted him to kill several Cardinals also; and somewhat to his surprise, he does not observe a single familiar bird, all appearing much richer in color than those he had been accustomed to see in his native land.

It was not until the comparatively lighter employment of school teaching, to which he eventually drifted, gave him the leisure which he at first unprofitably attempted to fill in verse-making; and after some years, his fortunate engagement as master of the little Union School in Kingsessing township, near Gray's Ferry on the Schuylkill river, then four miles from Philadelphia; brought him almost to the head of the short lane leading down to the famous botanic garden and the one man in all America able and unselfishly willing to initiate him into the mysteries and delights of ornithology; for William Bartram was one of Nature's noblemen. The intimacy formed with this kindly old gentleman, who became at once his "guide, philosopher and friend"; was as even flowing as a brook in a meadow on a calm summer day. Without a Bartram there probably would have been no Wilson, as Poet-Naturalist.

John Bartram, the founder, whom Linnæus pronounced the greatest self-taught botanist in the world, and whose proudest precept was to "Do justice, love mercy, and walk humbly before God"; was born March 23rd, 1699, and died on September 22nd, 1777, in deadly fear that the approaching British invaders would "lay waste his darling garden, the nursling of

almost half a century," and incomparably dearer to him than life itself. It is said that this indefatigable man planned and built with his own hands, the quaint old homestead in 1731, quarrying the stone on the place. True to his convictions he freed his blacks, paid them wages, taught them to read and write, patriarch-like placed them at the foot of his own table and took them to Quaker meeting on First-day. "There never was a purer, kinder, gentler-hearted man than John Bartram of Pennsylvania," and while his son "Billy" inherited neither his father's sturdy physique nor the old homestead, every virtue report gives the parent seems to have descended to the son.

Wilson had free access to the beautiful grounds, to the small but select library, and personal intercourse with the refined household. There he observed the wonders accomplished by the skill and industry of a single individual. When did the inspiration seize upon Wilson? Who can say. Perhaps while sauntering along the sylvan paths winding on the gentle slope above the river, musical with the voices of the many songsters; breathing the fragrance of the blossoms from many climes. Or may be while listening to the learned discourse of the amiable Author of "Travels through North and South Carolina." Or not at all improbable, insensibly, while in the act of detecting the errors and absurdities of European writers on our birds; for the privilege of contradiction is dear to the heart of every true Scotchman. But whatever the time and incident, the place must have been Bartram's Garden.

Wilson longed to accomplish something worth while. He had shown no special fitness for art or science, and its development depending entirely upon his own exertions would seem well nigh hopeless. He attempted to draw various objects, but on birds only succeeded in making passable representations.

Our first intimation of his intention is when he writes home to his friend Thomas Crichton, on June 1st, 1803, that he was about to make a collection of our finest birds. He reiterates this March 12th, 1804, in a letter to Alexander Lawson: "Six days in one week I have no more time than just to swallow my

meals, and return to my *Sanctum Sanctorum*. Five days of the following week are occupied in the same routine of *pedagoguing* matters; and the other two are sacrificed to that itch for drawing, which I caught from your honourable self. . . . I am most earnestly bent on pursuing my plan of making a collection of all the birds in this part of North America. . . .I have been so long accustomed to the building of airy castles and brain windmills, that it has become one of my earthly comforts, a sort of a rough bone, that amuses me when sated with the dull drudgery of life."

Seventeen days later, he writes to William Bartram: "I send for your amusement a few attempts at some of our indigenous birds, hoping that your good nature will excuse their deficiencies, while you point them out to me. . . .I am almost ashamed to send you these drawings; but I know your generous disposition will induce you to encourage one in whom you perceive a sincere and eager wish to do well. They were chiefly colored by candle-light. I have now got my collection of native birds considerably enlarged; and shall endeavor, if possible, to obtain all the smaller ones this summer. Be pleased to mark on the drawings, with a pencil, the names of each kind, as, except three or four, I do not know them." May 1st, 1804, he again writes: ". . . .I send you a few imitations of birds for your opinion, which I value beyond that of anybody else, though I am seriously apprehensive that I am troublesome. These are the last I shall draw for some time, as the employment consumes every leisure moment, leaving nothing for friendship or those rural recreations which I so much delight in. Even poetry, whose heavenly enthusiasm I used to glory in, can hardly ever find me at home, so much has this bewitching amusement engrossed all my senses." Poetry drew him aside for a time, however; his "Rural Walk," "The Solitary Tutor," and perhaps some other much less meritorious rhymes came from his pen.

The solitary hours of the following winter were devoted to the partial composition of a long poem containing 2218 lines descriptive of his journey the previous autumn to the Niagara

Falls, otherwise the winter appears entirely lost to him, owing to the widespread poverty and his inability to collect barely enough from his school to pay his board; so that it was not until the following spring that he began drawing the Canada Jay and Northern Shrike, the supposedly new birds he had brought from the Mohawk; finishing them in ten days, far superior to anything before attempted. Wilson discovered ere long that he had genius for has not genius been defined as infinite patience or the union of passion and patience?

His last drawings were transmitted to Thomas Jefferson, from whom he received a most kindly acknowledgement: and the mention of a mysterious bird the President was unable to fully describe, throws Wilson into a fever of excitement to procure. As Bartram surmises, it proves to be the Wood Thrush.

July 2nd, 1805, he again addresses Bartram: "I dare say you will smile at my presumption, when I tell you that I have seriously begun to make a collection of drawings of the birds to be found in Pennsylvania, or that occasionally pass through it; twenty-eight, as a beginning, I send for your opinion. They are, I hope, inferior to what I shall produce, though as close copies of the original as I could make. One or two of these I cannot find either in your nomenclature, or among the seven volumes of Edwards. . . . Criticise these, my dear friend, without fear of offending me—this will instruct, but not discourage me.—For there is not among all our naturalists, one who knows so well what they are, and how they ought to be represented. . . . To your advice and encouraging encomiums I am indebted for these few specimens and all that will follow."

The discovery that many years before, Edwards had etched the plates of his own series of volumes on Natural history, was responsible for a like attempt by Wilson under the instruction of Lawson. The first plate was a failure, but in the transmission of a proof of the second, January 4th, 1806, he announces his ambition to publish: "Mr. Wilson's affectionate compliments to Mr. Bartram; and sends for his amusement and correction, another proof of his Birds of the United

States." Thus the first two plates of his American Ornithology were produced by the author himself in a fairly creditable manner, but fell short of his own expectations; and as neither Lawson nor Bartram were prepared to assume a part of the sacrifice the series of engraved and colored plates would entail, his resolution of proceeding alone "even if it should cost him his life," was necessarily held in abeyance until he could find a publisher or the means of publishing it himself.

Wilson next offered his services in the interest of Natural science to the President, having heard of a proposed expedition under Captain Zebulan M. Pike to the Arkansas and Red rivers, to which he was desirous of being attached; but nothing came of it. In fact Jefferson never received his application and enclosed recommendation from Bartram. This expedition, which was a purely military one, comprising two lieutenants, one surgeon, one sergeant, two corporals, sixteen privates, and one interpreter; departed from near St. Louis on July 15th, 1806.

However, the near future had something better in store for him. On April 1st, after ten stormy years of pedagoging, he resigned to accept the assistant editorship of a revised edition of Ree's New Cyclopædia, about to be published in 22 quarto volumes by the firm of Samuel F. Bradford in Philadelphia. The articles of agreement were signed on the 20th. His duties seem to have been a critical reading of a former edition, making additions and corrections before going to press; proof reading and general supervision. Leslie states that he also served as tutor to Mr. Bradford's sons. His salary of $900, was extremely liberal for that period, no doubt. It was not long before he had a favorable hearing with his employer, in the interest of his cherished plan of an American Ornithology. By his agreement it appears that he was to furnish all of the drawings and the text for the work, and the publishers were to advance the funds for the mechanical execution and advertisement. Wilson was about to realize his dreams of fame, but at an enormous sacrifice, entailing journeys through an undeveloped country aggregating over ten thousand miles, re-

buffs unnumbered, unceasing toil day and night for a period of seven years, without a pecunary gain of one cent. He had already upward of one hundred drawings, many of which he used in the total of three hundred and twenty figures, as given by Ord. Leslie, who was an apprentice from 1808 to 1811 to Messrs. Bradford and Inskeep, Booksellers, observes: "I assisted him to color some of his first plates. We worked from birds he had shot and stuffed; and I well remember the extreme accuracy of his drawings, and how carefully he had counted the number of scales on the tiny legs and feet of his subjects. . . . Mr. Bradford was the most enterprising publisher in America, and determined to make the 'Ornithology' as far as he had to do with it, in the highest degree creditable to his country. The types, which were very beautiful, were cast in America. . . . (by Binney and Ronaldson); and though at that time paper was largely imported, he determined that the paper should be of American manufacture; and I remember that Ames, the papermaker, carried his patriotism so far that he would use only American rags in making it. The result was that the book far surpassed any other that had appeared in that country; and I apprehend, though it may have been equaled in typography, has not before or since been equaled in its matter or plates. Unfortunately Wilson's book was necessarily expensive and therefore not remunerative, but nothing discouraged him." [1]

Wilson states in the preface of his second volume: "Hitherto, the whole materials and mechanical parts of this publication have been the production of the United States, except the colors . . . . it is not without regret and mortification, he is obliged to confess that, for these, he has been principally indebted to Europe. . . . In the present volume, some beautiful native ochres have been introduced; and one of the richest yellows is from the laboratory of Messrs. Peale and Son of the Museum of this City. Other tints of equal excellence are confidently expected from the same quarter." He also acknowledges the professional talents and constant attention of the

[1] Leslie's Autobiographical Recollections.

printers, Messrs. R. and W. Carr, as well as the merits of Messrs. Lawson, Murry and Warnicke, in a later volume. He soon found, however, that he could place no dependance in Murry;[1] and stated to his nephew, William Duncan, "I mean to make it consistant both with the fame, and the interest, of Lawson to do his best for me."

Lawson needed no spur. He was so anxious to encourage his friend, that frequently after computing the time spent upon perfecting his work, he found his reward did not amount to more than *fifty cents* per day.[2] Think of one of the most expert copper-plate engravers in all America, working for so mean a pittance. This was friendship of the most substantial kind to Wilson.

By April 8th, 1807, Wilson had received the proofs of the prospectus, 2500 copies of which were printed on fine paper; and one of the plates having been completely finished by Lawson, the copper-plate printer set to work immediately to print each bird in its natural colors in place of the customary black ink, which would have affected the finer tints of hand-coloring; and before May 22nd, impressions of the first two plates delivered. Wilson taking the responsibility of securing well-colored specimen sheets for Boston, New York, Charleston, and elsewhere; experienced some difficulty in laying on the color wash. While in New York city, October 2nd, in the interests of his employers, he met Robert Fulton, who became a subscriber. Close and constant application to his manifold engagements during the summer, affected his health, but he could not be induced to take a collecting trip through the State until August. Finally in September, 1808, an edition of 200 copies of the initial volume, consisting of 6 pages of preface, 158 pages of text, and 9 beautiful plates exhibiting 34 hand-colored figures of birds, appeared: to be sold by subscription at $12. per copy.

[1] George Murry, a native of Scotland, removed to Philadelphia about 1800. Engraved Ree's Cyclopedia, Senior member of the firm of banknote engravers: Murry, Draper, Fairman & Co. Reckless and improvident, died poor about 1822.

[2] Ord's Life of Wilson.

On the 21st, Wilson set out to visit the Eastern States "as far as the District of Maine," by stage coach, on a canvassing tour. His plan upon entering a town, was to write a note enclosing prospectus to every one at all likely to subscribe, and shortly afterward to call at each address. Visiting Princeton, New Brunswick, Elizabeth and Newark; he arrived at New York, where he met with a brother Scotchman, also a Wilson and a Professor in Columbia College, who seemed to feel all the pride of national partiality so common to his countrymen and offered to do any favor in his power. On October 2nd, he took a packet for New Haven, where he was received with politeness and respect; thence up the Connecticut valley, in which he doubtless discovered his first Connecticut Warbler; through Middletown and Hartford, to Springfield; and then via Worcester to Boston, arriving about the 9th

Compliments were received in abundance, but $120., the price of the proposed set of volumes, was another matter. He writes from the latter place under the date of October 10th: "If I have been mistaken in publishing a work too good for the country, it is a fault not likely to be repeated, and will pretty severely correct itself."

In a week he continued to Salem and Newburyport, and through a portion of New Hampshire to Portland, Maine. From this place he steered across the country for the northern parts of Vermont, among barren, savage, pine-covered mountains; calling on the president of Dartmouth College at Hanover, who subscribed as did all the college heads visited in New England; and writes from Windsor on October 26th that he expected to be in Albany in five days. While he was well received at all seats of learning and mingled on terms of equality with some of the best men of the day, it appears from his Albany letter of November 3rd, that he did not average a subscription a day. A most discouraging failure to one less determined than himself. Daniel D. Tompkins, then Governor of New York and afterward twice Vice President of the United States; after turning over a few pages and looking at a picture or two, upon learning the price, closed the book and

bruskly said: "I would not give a hundred dollars for all the birds you intend to describe, even had I them alive." An exposition of stolid ignorance masquerading as good solid "horse-sense" that deeply offended Wilson. In De Witt Clinton he found an efficient public man better able to appreciate the service he was doing the country.

Almost immediately after returning to the Quaker city, he proceeded southward on horseback. At Havre de Grace and other points on the Chesapeake, he gathered additional information on the habits of the Ducks, particularly the Canvas-back, in early December. Baltimore, where he spent almost a week, yielded him sixteen subscribers; Annapolis none. Nowise discouraged, he proceeded thirty-eight miles through tobacco fields, sloughs, and swamps to the National Capital, dismounting in the mud fifty-five times to open as many gates enroute. He was received and encouraged by President Jefferson and others in a most substantial manner. Georgetown and Alexandria were canvassed about Christmas, and the southern peregrination continued. At Fredericksburg he found the Mockingbird as a permanent resident. Richmond, Petersburgh, Williamsburgh, Hampton, Norfolk and Suffolk, all increased his subscription list. Crossing over the flooded Nottoway near Jerusalem in a flat boat, he proceeded through solitary pine woods, perpetually interrupted by flooded swamps, which were often covered with a thin sheet of ice from half an inch to an inch thick, cutting his horse's legs and breast. Sometimes wading, sometimes swimming bridge approaches, the Roanoke river balked him at three different ferries, thirty-five miles apart; at last he succeeded in crossing at a place fifteen miles below Halifax about January 20th, 1809. A violent snow storm made the roads still more execrable. The Tar river was crossed near Washington and New Berne approached. From here on the 5th of February he noted the disappearance of frost and the opening of the shad season, and met with the Swamp Sparrow, in considerable numbers on the banks of the Trent. He had already discovered the Red-cockaded Woodpecker and Pine Warbler, in the immense, solitary, pine savannas; and on his

next stage of the journey, one hundred miles to Wilmington and only a single house for the accommodation of travelers, on the road; expatiates on the enormous cypress swamps. "Picture to yourself a forest of prodigious trees, rising, as thick as they can grow, from a vast and impenetrable morass, covered for ten feet from the ground with reeds. The leafless limbs of the cypresses are clothed with an extraordinary kind of moss (*Tillandsia usneoides*), from two to ten feet long, in such quantities that fifty men might conceal themselves in one tree. Nothing in this country struck me with such surprise as the prospect of several thousand acres of such timber, loaded, as it were, with many million tons of tow waving in the wind. I attempted to penetrate several of these swamps, with my gun, in search of something new; but, except in some chance places, I found it altogether impracticable." Yet about twelve miles north of Wilmington he succeeded in killing two, and capturing the third Ivory-billed Woodpecker; the latter being only wing-tipped, uttered a most piteous note, exactly resembling the violent crying of a young child. Placing it under cover, he rode on to the town, "arriving at the piazza of the hotel, where I intended to put up, the landlord came forward, and a number of other persons who happened to be there, all equally alarmed at what they heard; this was greatly increased by my asking him whether he could furnish me with accommodations for myself and my baby. The man looked blank and foolish, while the others stared with still greater astonishment. After diverting myself for a minute or two at their expense, I drew my Woodpecker from under the cover, and a general laugh took place." The bird had its revenge later, however; for when left alone in a room, it wrecked a mahogany table and almost cut its way through lath and plaster to freedom.

From Wilmington, he rode through pine savannas and cypress swamps, as before; sometimes thirty miles at a stretch without seeing a cabin or human being. On arriving at the Wackamaw, Pedee and Black river region, he took long zigzag journeys among the wealthy rice planters, receiving cordial welcome. Forty-two miles north of this region, he had been

enabled to make an advantageous trade in horse flesh; his animal having shown signs of giving out in the deep sands of South Carolina. A planter took a fancy to it; and in exchange, Wilson received a vicious sorrel with plenty of endurance, which at once ran away with him at a canter for fifteen miles, and traveled forty-two miles the first day with but a few mouthfuls of rice straw to eat; and at the Georgetown ferry, threw one of the boatmen in the river. Charleston was reached about the middle of February; at any rate he arrived in time to preside at a singular feast on the 21st at Hampstead, a suburb; in which the carcass of a horse served as the *piece de resistance*, and 237 Black Vultures, with several dogs, the self-invited guests. Here he records a total of 125 subscribers since leaving home, and here it was a Scotchman again, that came to his aid, giving him a list of prospective subscribers taken from the directory, among whom he expends ten days with good results, departing on the 23rd for Savannah. While being ferried over the flooded Savannah river, at the Two Sister's Ferry, his horse threw himself overboard, and had not Wilson rescued him at a great personal risk, the animal would doubtless have been lost. In this vicinity he had the best fortune of the trip, ornithologically it yielding the Great White and Louisiana Herons, Fish Crow, Savannah Sparrow and Yellow-throated Warbler. He notes the Brown Thrasher in full song on March 1st and the Mockingbird one day later. From a collector's standpoint, he could not have chosen a more unseasonable time for his trips. From the northern parts of the district of Maine to the Ogechee river in Georgia, a distance of more than 1800 miles by the circuitous route in which he traveled, he never passed a day and scarcely a mile without seeing numbers of the Snowbird or Slate-colored Junco. However he had accomplished his mission of securing a total of two hundred and fifty subscribers, "obtained at a price worth five times their amount," as he writes on March 5th. He had visited every town of importance within one hundred and fifty miles of the Atlantic coast from the St. Lawence river to Savannah. He had endeavored to make arrangements at every town with depend-

able subscribers to deliver the volumes as issued without recompense other than the privilege of first choice. He had collected a great mass of personal information respecting the birds of the South, but in this "the most ardous, expensive and fatiguing expedition," he had expended all his savings. It would appear from his letter to his father,[1] dated from Philadelphia, June 15th, "about two months" after his return by sea; that he had been as far south as St. Augustine, Florida; but as his funds were too nearly exhausted to permit him to visit Augusta, where he was told twelve or fifteen subscribers awaited him, and there are no other evidences in his published writings that he ever visited the mainland of that State; it is doubtless an error. It is evident, however, that he was as far south as the Altamaha river, where he noted the Pileated Woodpecker, and the Myrtle Warbler, "as late as the middle of March." He recorded the Hooded Warbler at Savannah "about the 20th of March," but it must have been a little earlier, for he announced his arrival at New York, on his way home, on the 22nd of the same month.[2]

Wilson had not yet relinquished his position as Assistant Editor of the Cyclopædia, but doubtless did so previous to his Western trip, which began January 30th, 1810, shortly after the second volume of his Ornithology appeared. His success during the last trip had encouraged the publishers to increase the edition to 500; if indeed that number of subscriptions were not absolutely necessary to meet expenses. On foot he worked through the small towns of Southern Pennsylvania: Lancaster,—the State Capitol, where Governor Simon Snyder passed some good natured compliments on the work as he readily added his name, and three sets were contracted for the Legislature; Columbia, York, Hanover,—where he so neatly turned the argument upon Judge Hustetter,[3] who had taken it upon himself to remark that the book "ought not to be encouraged, as it was not within the reach of the com-

[1] Crichton's Life of Wilson.

[2] See remarks under the head of the Mockingbird, American Ornithology.

[3] Coues, Penn Monthly, 1879, p. 443.

monality; therefore inconsistant with our republican institutions." By the same mode of reasoning which he did not dispute, Wilson "undertook to prove him a greater culprit, in erecting a large, elegant, three story brick house, so much beyond the reach of the commonality, as he called them, and consequently grossly contrary to our republican institutions." From Hanover he crossed the North mountains at Newman's Gap and arrived at Chambersburg. The next morning he doubled on his track, almost, to visit Dickinson College at Carlisle, and returned via Shippensburgh, departed by stage from Chambersburg on the 11th of February; the last two towns producing him nothing. Ascending the Allegheny mountains, passing through Somerset and Greensburg, he arrived at Pittsburg on the 15th. On February 22nd began that romantic voyage in the wilderness, fraught with so much hazard and hardship. Procuring a skiff which he named the Ornithologist, he rowed down the Ohio 720 miles, putting up at the shore wherever curiosity impelled or storm compelled; composing the "Pilgrim," and complaining little because the rifle, ax and plough were in greater demand on the frontier than the book.

The great number of flat and house boats loaded with merchandise descending the great Ohio and its tributaries, prevented him from being lonely, and at Steubenville and Wheeling he found some friends. While at Marietta he visited the celebrated prehistoric Indian mounds on the banks of the Muskingum, ascending that stream seventy miles to Big Bone creek and attempted a little excavating for relics on his own hook. Blannerhasset's island, but recently a place of national consequence, was passed in the night. Gallipolis, the mouths of the Sandy and Sciota rivers were successively left behind; the last being where the first flock of Carolina Paroquets were encountered, also a violent storm of wind and rain. The savage grandeur and picturesque scenery of the river, winding through forest-clad hills and an immense country, impressed him greatly. At Salt Lick he was curious to learn of further finds of fossil remains. He arrived at Cincinnati and Newport by

March 9th amidst very tempestous weather. Here he examined the collection of Indian relics possessed by Dr. Drake, and the inhabitants are described as a very thoughtful people, i. e. when approached for subscriptions, they promised to think of it. He rambled up the banks of the Great Miami, twenty miles below, for four or five miles, and shot a Wild Turkey and saw several deer. On the afternoon of the 15th, he entered the Big Bone creek, and securing his boat, rambled through the woods to Big Bone Lick, the ancient rendezvous of the mastodon; securing fourteen Paroquets on his return, and stopping the next night at the Swiss settlement of vine growers. During the following day he passed the mouth of the Kentucky and was very much disgusted to have to lodge at a wretched hovel and listen to the tales of a braggard, the last night on the river. Although an early start was taken in the morning, an unsuccessful turkey hunt detained him so long that night came on before he heard the roaring of the rapids. Cautiously coasting the Kentucky shore, for he was greatly alarmed, a haven was found at Bear Grass creek, and he groped his way through a swamp to the town of Louisville, March 17th; and the end of the first stage of his journey was successfully reached. The next day he sold his skiff for exactly half of what it had cost him, the purchaser wondering why he had given it so droll an "Indian" name.

At Pittsburg, Long Reach, Cincinnati and Bairdstown he had recorded the Snowy Owl. He had now arrived in a country at the proper time in which to look for something more than "Snowbirds and sparrows." Here he came unexpectedly upon Audubon engaged in drawing birds in crayons at his place of business and later enjoyed an afternoon's shooting with him. As it happened, he had put up at the house in which Audubon and family made their home. The lively Frenchman thought that Wilson's retired habits exhibited either a strong discontent or a decided melancholy, and the Scotch airs he played sweetly on his flute made Audubon melancholy too. Wilson was bitterly disappointed in Louisville, of which he had been led to expect so much of everything and received so little

of anything. On March 24th, after leaving his baggage in care of a merchant, to be shipped to Lexington, he pushed on via Middletown and Shelbyville, on foot, for Frankfort. Before reaching the latter, he went aside a short distance to examine the remains of an extensive Pigeon roost, wading the deep Benson creek nine or ten times. At one o'clock the birds were flying in with great steadiness and rapidity, at a height beyond gunshot, in several stratas deep. From right to left as far as the eye could reach, the breadth of this vast procession extended, seeming everywhere equally crowded. At four o'clock, Wilson crossed the Kentucky river at Frankfort, yet the living torrent seemed as numerous and as extensive as ever. Several days were spent in this town and in rambling among the stupendous cliffs of the river. Lexington was reached on March 29th and considerable time spent in this interesting place. Procuring a saddle horse, he continued his journey toward Nashville, Tennessee, 200 miles distant. Somewhere in the neighborhood of Nicholasville, perhaps, he overtook a man mending his stirrup-leathers, who after he had walked around him several times, observed that he appeared to be armed. And small wonder, for Wilson had a loaded pistol in either pocket, a loaded fowling-piece strapped across his shoulders, five pounds of shot in a belt and a pound of powder in a flask. The stranger proved a most zealous Methodist, and as they traveled together for mutual protection, Wilson found a hymn in his companion's book nearly answering to Jones' song of the "Vicar and Moses" and that soon became a favorite air with them. He labored earnestly to make a convert of Wilson. The spectacle of the latter galloping down hill, with the preacher following as best he could, and shouting his exhortions with great vehemence, must have been a refreshing one. He often took care of the ornithologist's horse, while he went off into the woods after strange birds. Crossing the Kentucky river for the last time, in a few more miles a descent was again made to Dick's river, and Danville reached in the dark. Near here the Kentucky Warbler was discovered about the middle of the month.

On April 17th, 49 miles beyond Danville, in Green County, the most extensive breeding ground of the Passenger Pigeon in the State was penetrated for three miles. The trees, chiefly beech, were loaded with nests, and the length of the colony said to be over forty miles! Wilson does some figuring of the total number of individuals of this species seen on the entire trip and places it at 2,230,272,000! Quite interesting in view of the fact that the bird is now in all probability practically extinct. Lodging near the banks of the Green river, they crossed the Little Barren on the afternoon of the following day. Here the whole country began to assume a new and very singular appearance; the woods which hitherto had been stately, now degenerated into mere scrubby saplings and the earth was covered with rich vendure, interspersed with a variety of very beautiful flowers; and the enormous caverns of Warren county especially astonished Wilson. After being ferried over Big Barren river, and fifteen miles beyond Bowling Green, he was induced by the novel character of the country to bid farewell to his Psalm-singing friend, and tarry for five days at the house of a pious and worthy Presbyterian, who charged him nothing and would have gladly kept him a month for the drawing lessons he gave the daughters. Making excursions in all directions, he added the Prairie Warbler to his list of new birds, and here found the Whippoorwill more numerous than in any other part of the country. Once more taking to the saddle and crossing the Red river, he found no more "barrens," but as he entered Tennessee, the face of the country became hilly and even mountainous. Coursing along the rich valley of Mansker's creek, near the Cumberland river, he stopped at a small tavern kept by Isaac Walton; and here quite probably, added the Tennessee and Nashville Warblers to our fauna, as well as figuring the female of his already described Cerulean Warbler as another nondescript. When he departed, the landlord, a most worthy namesake of that great disciple of the gentle art of fishing; refused to accept anything for his fare, saying: "You seem to be traveling for the good of the world; and I cannot, I will not charge you anything. Whenever you come

this way, call and stay with me. You shall be welcome." Entering Nashville April 26th, he busied himself drawing the new specimens and prepared for the trip through the Indian country; departing on May 4th. Swimming the Great Harpath, he rode in his wet clothes without inconvenience. Meeting with the Swallow-tailed Kite at Duck creek, he now observed growing cane, and the naked negro children in the solitary clearings. Before proceeding to the Buffalo river, he turned aside to visit the last resting place of his late friend, Captain George Merriwether Lewis, the explorer associated with Gen. William Clark in the Government Expedition across the Continent. After listening to Madam Grinder's unsatisfactory account of the suicide or murder, he gave from his own scanty means the money for a fence around the grave to shelter it from the hogs and wolves. This incident threw Wilson into a very melancholy mood, which the gloomy and savage wilderness of forest, cane and morass he was just entering, did not tend to allay; and to give vent to the despondency of his mind, he composed a poem which he dedicated "In Memory of Captain Lewis":

"Unhappy youth! here rest thy head.
Beloved, lamented by the brave;
Though silent deserts round thee spread,
And wild beasts trample o'er thy grave."

Entering the Chickasaw country, he slept the first night in one of their huts. Floundering through one bad swamp after another to the banks of the Tennessee, he was obliged to encamp for the night with the gnats, Owls and Chuck-will's-widow for company; and to his rage the ferryman did not appear until 11 o'clock of the next day. At Bear creek, entering the extreme north-east corner of the present State of Mississippi, but recently ceded and still known as West Florida; he first observed the Indian boys with blow guns; long hollow tubes of cane, through which a slender dart covered at the base with thistle-down is expelled with violence at a puff of the breath. The Cerulean Warbler, so rare in the East, became the most common of its tribe here.

Horrid swamps, poisonous water, prodigous growth of cane and high woods shutting out the light of day! Horse bemired, from which nothing but great strength and exertion would rescue him. General Wade Hampton was met and looked anxious when told what was before him, a convalescent. Wilson passed through the Chickasaw Bigtown. Already the poisonous swamp water, burning sun, and reeking clothing, had brought on an attack of dysentery which threatened to make an end of him in the lonely country of the Choctaw nation. An Indian recommended the ripe and abundant wild strawberry, and Wilson kept up his strength with newly laid eggs, eaten raw, to which he credits the cure, after some days in which he could hardly keep the saddle. On May 12th, he noted the nest of an Olive-backed? Thrush which he mistook for that of the Hermit Thrush. At length, on May 18th, the journey of 478 miles from Nashville lands him at Natchez, on the banks of the Mississippi; "through difficulties, which those who have never passed the road, could have no conception of"; guarding his precious book and specimens from the ravages of the elements throughout that long, lonely journey, and to the astonishment of the boatman, without whisky; the pages of history do not contain a better example of dauntless pertinacity of purpose.

What must have been his gratification upon emerging from the wilderness, to receive a note from William Dunbar, a subscriber, living nine miles below Natchez; the bearer attending with two horses: ". . . . I understand from my boy, that you propose going in a few days to New Orleans, where you will see some small cabinets of natural history that may interest you. But, as I presume it is your intention to prosecute your enquiries into the interior of our country, this cannot be done better than from my house, as your headquarters. My house stands literally in the forest, and your beautiful orioles, with other elegant birds, are our courtyard companions. . . ." The novelty of being welcomed by a perfect stranger, led him to ride out on May 23rd, and spend several pleasant and profitable days; for here he procured the Mississippi Kite, and later,

through the kindness of his host, the Roseate Spoonbill. The last lap of 252 miles of the land journey, brought him to New Orleans; not however before he had visited his hospitable friend, Dr. Samuel Brown, near Fort Adams at the extreme southwestern part of the State—here the association of the magnolia with the warbler of that name. Arriving at the Crescent city on June 6th, another surprise awaited him in the shape of sixty subscribers, by the 30th, on which date he took passage on a ship bound for New York. Becalmed for twenty days in the Gulf of Mexico and carried by currents as far south as Cape Antonia, the westernmost extremity of Cuba; he met with the White Ibis again on the low keys off the peninsula of Florida, having first observed it in June on the borders of Lake Pontchartrain, Louisiana; also in passing along the northern coast of Cuba, and the coasts of Florida and Georgia, in July, the Sooty Tern was found very numerous, and Wilson shot and dissected several. In passing the coasts of Florida and the Carolinas, great numbers of Wilson's Petrals were encountered and notwithstanding the superstitious fears of the seamen, fourteen specimens were shot on a calm day and a boat lowered to pick them up, some eighty or ninety miles off the coasts of South Carolina. Wilson reached Philadelphia on the 2nd of August, 1810. It is stated that his total expenses up to his arrival at New York, were only $455.

The third and fourth volumes appeared during February and September, 1811, and the fifth and sixth numbers, in February and August, 1812; Wilson taking frequent short excursions in search of material, particularly to the Blue mountains in Northhampton county, where he doubtless secured his Blue Mountain Warbler; and the headwaters of the Lehigh and Pocono region, Pennsylvania; where he killed the American Crossbill, Wilson's Thrush, and became more intimately acquainted with many of our Warblers. During this time he resided at the Bartram homestead, and here in an atmosphere most congenial to literary labor, composed much of his Ornithology. Soon after the sixth volume was brought from the press, he undertook a second journey into the Eastern

States for the purpose of visiting his subscribers and settling accounts with his agents. The route from New York, was up the Hudson to Albany, to Lake Champlain, along which he coasted as far as Burlington, Vermont, by September 23, 1812; then overland through the rugged mountain region to the Connecticut and down the river to Haverhill, where he was arrested on suspicion of being a spy from Canada, after he had ascended one of the highest peaks of the White mountains for the sublime view it afforded him; but was soon released with many apologies for the mistake. Continuing down the river to Hanover, New Hampshire, he took the shortest route to Boston, Portsmouth and Portland. With his face toward home, he wrote from Boston, October 13th, "In New England the rage of war, the virulence of politics, and the persuit of commercial speculations, engross every faculty," and complained of a violent palpitation of the heart.

The seventh volume appearing late in April or early May, 1813, Wilson, accompanied by Ord, spent four weeks at Great Egg Harbor, so named because of the great number of eggs to be found there during the breeding season. This was the last of six trips to the New Jersey coast in pursuit of the Water Birds. On his return he had looked forward to spending the summer with his friend Bartram, but the press of work incident to his earnest desire to an early completion of the work, prevented this; and in a letter dated July 6th, he writes to Bartram: "I am myself far from being in good health. Intense application to study has hurt me much. My 8th volume is now in press and will be published in November. One volume more will complete the whole." Wilson's sole resources since he relinquished his superintendence of the Cyclopædia, were his receipts from the publishers for the coloring of the plates of his work! He states in his preface of Vol. IV, September 12th, 1811, "the correct execution of the plates will be rendered more secure, by the constant superintendence of the Author; and by the whole of the coloring being performed in his own room, under his immediate inspection. The great precision requisite in the last process, and the difficulty of impressing on

the minds of every one whose assistance was necessary, similiar ideas of neatness and accuracy, have been a constant source of anxiety to the Author, and of much loss and delay. These difficulties have at length been surmounted, by procuring the services of two able assistants." April 21st, 1813, he informs Bartram: "I have been extremely busy these several months, my colorists having all left me; so I have been obliged to do extra duty this last winter." His one fault, irritability, which was said to have counteracted in some measure the good effect his high moral character produced, no doubt contributed largely to his loss of help at this most critical period. Never of the most robust health, he continued to draw on the apparently superabundance of nervous energy; but he had disregarded the laws of health so often, he could not forever remain immune.

Weighed down by care, ill health and incessant toil; he one day conversed at the house of a friend, when he observed a bird for which he had long been in search; but before he obtained the object of his eager pursuit, he had to swim across a stream; a cold resulted, bringing on his old complaint, dysentery; and debilitated as he was, it resulted in death ten days later, August 23rd, 1813, in his forty-eighth year. His brother David said: "The moment that I heard of his sickness, I went to the city, and found him speechless; I caught his hand, he seemed to know me, and that was all. He died the next morning at 9 o'clock." Ord states that "while in the enjoyment of health, he had conversed with a friend on the subject of his death, and expressed a wish to be buried in some rural spot, sacred to peace and solitude, whether the charms of nature might invite the steps of the votary of the Muses, and the lover of science, and where the birds might sing over his grave." But his wish was not made known at the time or it would have been piously observed. They laid his remains in the little yard of Gloria Dei, the Old Swedish Church, at Swanson, near Front Street; and placed over it a plain slab of marble. No costly monument is required to perpetuate his memory as the Father of American Ornithology.

OCTOBER BIRDS OF WALL LAKE, SOUTH DAKOTA.

BY ADRIAN LARSON.

The following notes are from observations made from October 12 to 23 inclusive at Wall Lake and the surrounding country for a radius of about two miles.

Wall Lake, which lies about twelve miles west of Sioux Falls, is somewhat triangular in shape, being nearly a mile long and about three-quarters of a mile wide. Its greatest depth is about fourteen feet. It is fed by springs, but were it not for the heavy snow and spring rains for the last few years the lake would be much smaller.

The shore line is marked mostly by small boulders, except for a long stretch of sandy beach at the south end.

The banks of the lake are covered with a small growth of such timber as the willow, cottonwood, ash, box-elder and soft maple, with a plum or choke-cherry thicket, interspersed with locust, gooseberry and other bushes, scattered here and there.

The margins of the lake, mostly on the east, but also a little on the south and west sides, are covered with rushes which extend out about a hundred feet from shore, and scattered throughout the lake are the various fresh water aquatic plants.

There is an abundance of small fish, frogs, and water newts in the lake, which make it a great resort for the fish-eating waterfowl.

To the south, west, and north of the lake are scattered the innumerable sloughs which vary in depth from about dried up to six or more feet deep; these sloughs are covered more or less with wild rice, and other water grasses.

The weather for the first four days was mostly clear, with the wind from the south; the 17th and 18th, were cloudy days, with the wind from the north; on the 19th the wind changed to southeast which brought a small shower; on the 20th it was cloudy with a light southerly wind; on the 21st the wind changed around to north and the air became cooler and the sky cloudier and continued this way until the 23rd, when it brought on a fine snow which soon changed to rain.

On the 22nd, huge flocks of gulls, ducks, and geese were seen flying south, which they kept up with increasing numbers on the 23rd.

1. Horned Grebe.—Not nearly so common as the Pied-billed.
2. Pied-billed Grebe.—Very common on the lake.
3. Loon.—First seen on the 18th; saw several every day afterwards.
4. Franklin Gull.—Abundant; seen every day.
5. Double-crested Cormorant.—First seen the 14th; also on the 16th, 18th and 20th in pairs.
6. Hooded Merganser.—Saw four the 16th; two the 18th.
7. Mallard.—Abundant, both on the lake and about the sloughs.
8. Baldpate.—Common.
9. Green-winged Teal.—Abundant.
10. Blue-winged Teal.—Not quite as common as the Green-wing.
11. Spoonbill.—Abundant.
12. Pintail.—Abundant.
13. Redhead.—Not common.
14. Canvas-back.—Only a few seen.
15. Scaup Duck.—Not common.
16. Lesser Scaup.—Not common.
17. Ring-necked Duck.—Fairly common; judging from what was shot the Ring-neck was the commonest of the Bluebills.
18. Golden-eye.—Fairly common on the lake the first few days.
19. Ruddy Duck.—Common on the lake; these little ducks are as expert at diving and sinking in water as are the Grebes.
20. Snow Goose.—Many flocks, the 22d and 23d.
21. White-fronted Goose.—Many flocks.
22. Canada Goose.—Several flocks.
23. Am. Bittern.—Abundant, especially around the sloughs.
24. Great Blue Heron.—One was seen on the east side of the lake on the 20th.
25. Sandhill Crane.—Several flocks.
26. Coot.—Very common. Here they are called mud-hens.
27. Wilson Phalarope.—Seen every day up to the 14th.
28. Wilson Snipe.—Common, especially about the sloughs.
29. Pectoral Sandpiper.—Common till the 14th; seen only about the sloughs.
30. Spotted Sandpiper.—Two seen on the 12th and one on the 13th.
31. Killdeer.—Common.
32. Bob-white.—Large flock seen in a corn field on east side of the lake.
33. Prairie Hen.—Fairly common in corn fields.
34. Mourning Dove.—Several were seen on the 13th.

35. Marsh Hawk.—Common.
36. Screech Owl.—Heard only one night.
37. Northern Flicker.—Fairly common for the first few days.
38. Prairie Horned Lark.—Common.
39. Crow.—Not very common.
40. Red-winged Blackbird.—Abundant.
41. Meadowlark.—Common.
42. Rusty Blackbird.—Abundant.
43. Bronzed Grackle.—Common.
44. Am. Goldfinch.—Not common.
45. Lapland Longspur.—Flock of nine on the 23d.
46. Tree Sparrow.—Abundant.

CARROLL ISLET, WASHINGTON.

Our landing place. The hole thru the island shows here as the dark spot to the right of the white patch of water. The profile slope was our trail to the top and camp. Our cache shows just below the notch.

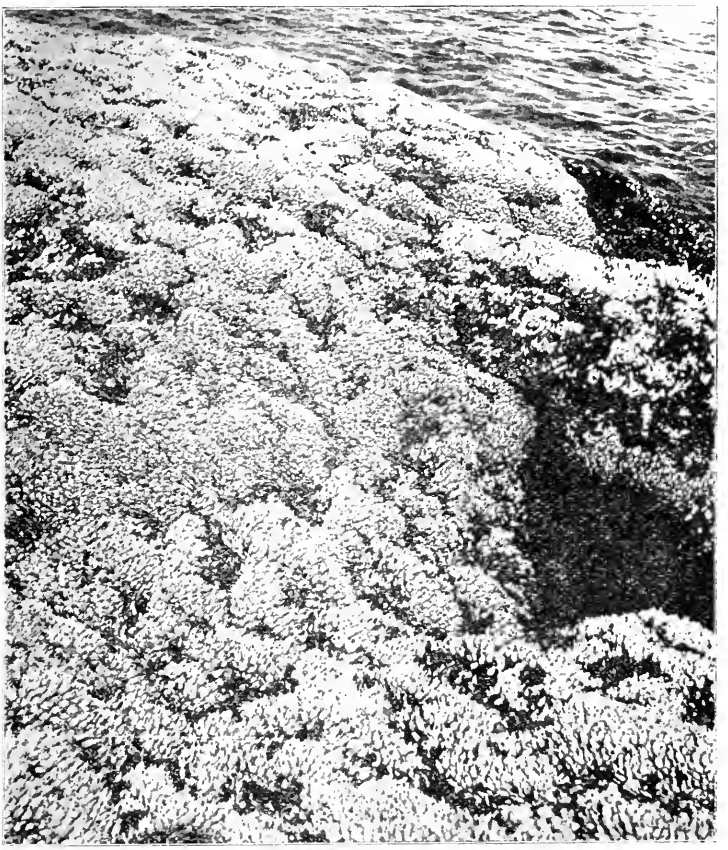
47. Junco.—Common.
48. Song Sparrow.—Common.
49. Fox Sparrow.—Abundant.
50. Barn Swallow.—One seen on the 12th; another on the 13th.
51. White-rumped Shrike.—One seen on the 21st.
52. Myrtle Warbler.—Seen several times.
53. Am. Pipit.—Common.
54. Robin.—Not very common.

JUNE WITH THE BIRDS OF THE WASHINGTON COAST.

BY LYNDS JONES.

DHUOYUATZACHTAL.

Strong notherly winds during Monday, June 17th, held us prisoners at LaPush, but they did not prevent two of the Indians from breaking away from the restraints of the Post and



CARROLL ISLET, WASHINGTON.

You spring from the canoe, which is riding a wave crest, and land on these barnacle-covered rocks—or in the icy-cold sea.

Agent for the purpose of beating us to Carroll Islet to sack that and adjoining islands, in accordance with their ancient custom. They entertained the mistaken notion that our purpose included the collection of all eggs and young birds, and they proposed to secure their share for a general tribal feast. Fortunately for our purposes the seas prevented a landing on Carroll Islet, but the adjoining island of Wishaloolth was as nearly cleaned of eggs as it was possible for them to clean it. The agent confiscated the eggs, upon the return of the renegades, and threatened them with the state law, which provides a severe penalty for such breaches. There were 256 eggs taken, mostly from nests of the Glaucus-winged Gull, but a few from nests of California Murre and Tufted Puffin. Few of them were fresh, since these Indians prefer the flavor of well incubated eggs! Loud murmurings of protest and black looks did not shake the agent from the performance of his duty. While it may seem somewhat hard to deprive these Indians of the privilege of gathering for themselves this supply of food, which is to them one of the provisions of Nature and apparently their right, I am sure that no one who has personal acquaintance with the facts will dissent from this deliberate attitude of the Government officials. It is entirely clear that none of these Indians really needs this supply of food.

At 8 o'clock on Monday evening our Indians took us over to Dhuoyuatzachtal, which lies under the lea of the point on which LaPush is situated, leaving us there for some night work. From the top of this island the sun was just sinking into the foam crested waves. Our blankets were spread upon a spot the least likely to harbor nests of either Kæding's Petrel or Cassin's Auklet, but in spite of our precautions in this respect subsequent events proved that we were holding some dozen birds prisoners in their nest burrows. If the birds without seemed to be saying 'I'm here, I'm here, let me in, let me in,' surely those within were more eagerly calling 'I'm here, I'm here, let me out, let me out.'

The highest point of this island, a rock ridge, faces northward, this side of the island being almost precipitous. South-

erly to this ridge there is an area of tall coarse grass, fringed by bushes on its east edge, and still more southerly and lower down on the slope grows a fine curly grass some four inches high, the roots forming a tough, thick turf over a bed of stone chips. The burrows of Kæding's Petrel honey-combed this turf, and even extended into the tall grassy area. In this tall grassy area and among the roots of the bushes were numerous nests of Cassin's Auklet, while the Tufted Puffins burrowed among the rocks which fringed the vegetation covered area. There were no gull's nests on this rock.

Carrol Islet Camp, beneath a spreading Sitka spruce monarch.

The object of this night excursion was to catch the Petrels and Auklets in their characteristic nocturnal activities by flash-light. While the birds were numerous enough, and flew close enough during our periods of quiet, they were so disturbed by the operations of the camera that no pictures were secured.

After we had settled down for the night one Petrel whose nest may have been beneath our bed perched upon my head and refused to be shaken loose. Its only damage being the introduction of sundry sharp points into my scalp for a securer hold, I lay quiet until it was willing to depart peacefully, after which two thickness of blanket formed an effectual shield to further visitations. The din of noises which surrounded the island all night long beggars description.

Many nests of both Kæding's Petrel and Cassin's Auklet were uncovered by overturning the sod as the burrows were followed. While the burrows of the Auklet were usually a lit-

A Dhuoyuatzachtal Kæding's Petrel at home.

tle further from the surface and a little longer, the plan was the same. The mouth of the burrow extended almost vertically down six inches or more, until stones were encountered, then the burrow turned and ran paralled to the surface of the sod.

Very few burrows were straight for any distance, but usually angled here and there apparently to avoid obstructions. Several feet from the nest end of the burrow there was always a side burrow branching off at a sharp angle, ending in an unused enlarged space. Nothing was ever found in this false burrow. The nest burrow of the Auklets contained a bed of dry grass, but that of the Petrel often contained nothing but fish bones. Very few of the Auklets were at home on this island, possibly because there were no young in the nests, but at Alexander Island most of the burrows contained young birds and one parent. Unoccupied nests were few. In every Petrel burrow there was at least one bird. If there was an egg the male bird was with it, but if there was no egg both birds occupied the nest burrow. We were unable to determine whether the office of incubation is assumed wholly by the male or whether it is shared by the female. Only males were found in the burrows with eggs. When either of these species was taken from the burrow and tossed into the air they took the shortest course to the water, usually vacillating somewhat as if confused by the sudden daylight. It seemed to us significant that the presence of these two species anywhere in this region would not be suspected away from their nesting burrows. None at all were seen during daylight on any part of the trip.

Dhuoyuatzachtal is made the study place of these two birds, but both were found nesting on Carroll Islet in small numbers. Other matters occupied our attention during our stay at Carroll.

CARROLL ISLET.

In the face of a brisk northerly breeze and against high running waves, our Indians were finally persuaded to try the seven mile passage to Carroll. All our belongings were entrusted to the canoe, but we two took the land route to a position opposite the island, skirting the shore, in order to lighten the canoe for easier battle with wind and waves. We were plainly told that none but fools ventured out on the ocean in such a sea. It was therefore with some misgivings that we watched the canoe alternately ride clear on the crest of a huge wave and then com-

pletely disappear in an equally deep trough, as we kept abreast of it.

In the quiet lea of a bold rock which formed the seaward end of a spur running out into the ocean toward Carroll, we embarked. By keeping in the lea of Wishaloolth, about two miles

Glaucus-winged Gulls over the summit of Wishaloolth Island.

landward of Carroll, a smooth passage was effected to this island, which was visited the day previous by the two Indians. An hour's inspection here afforded rest to the tired Indians, and enabled us to estimate the damage inflicted by the visitors. On

CARROLL ISLET, WASHINGTON.

Glaucus-winged Gulls (*Larus glaucescens*). There are nests among the vegetation.

A Baird Cormorant (*Phalacrocorax pelagicus resplendens*) sitting on her nest.

every hand there were rifled nests, and we found the birds greatly excited, so much so that almost no pictures could be secured. We indulged in a good deal of speculation as to the probability of a landing by the Indian eggers on Carroll, and its probable results. Fortunately for us they had not dared to make the passage which we were to essay within the next half hour.

Without going into the details of the two mile row against heavy seas and the equally rough landing on a southerly spur of Carroll, nor speaking of the tedious carry from the high tide mark to the top of the island, let us pass at once to the work in hand.

Seaward Carroll Islet presents a rock precipice some 200 feet in hight. A stone dropped from the top, within two rods of our camp, would fall clear into the ocean below. Landward the island slopes at first gently, but finally at an angle of nearly 70° to within thirty feet of the water, ending in another precipice there. It was only along the landward side that ascent was possible, and even there one must clamber up vertically for ten or more feet, finding foothold in the weathered rock. Two sharp rock ridges jut out, one at the north-east corner the other landward easterly. The gentler slope of the top is covered with Sitka spruce trees, two of them old monarchs, with a few deciduous trees, growths of elder bushes, a sort of a red raspberry bush, and the ever-present salal bushes. Bordering the woods on the steeper slopes there is a growth of grass clinging to masses of soil which has lodged in the interstices between rock chips. In some places this grass is seen clinging to shelves on the face of precipices. Exposed rock faces are pitted and hollowed by the elements into nesting places for cormorants and gulls. Other rock masses, a good deal worn down, project from the other angles of the island. The waves have worn a hole completely through the island parallel to the landward side and about a hundred feet from it.

Studies of the breeding birds may very well be made by species separately. A description of the White-crested Cormorant colonies has already been given. The most abundant

bird on the island, and therefore the one naturally treated first, was the

GLAUCUS-WINGED GULL (*Larus glaucescens*).

Practically the entire island was covered by the nests of this species except the area covered by the taller trees, and also except a relatively small area on the steep slope of the northeastward side. By covered is meant that there were nests in all

Glaucus-winged Gull (*Larus glaucescens*). Nest and eggs on Carroll Islet. A typical nest placed amid vegetation on a sharp slope.

sorts of situations and within reasonable distances of each other, but never within striking distance of the birds occupying adjoining nests. A number of nests were found beneath the dense fringe of salal bushes, and many of the larger grottoes of the perpendicular rock faces contained a nest. Ledges which were broad enough to afford us secure footing were also occupied by nests. Often nests could be seen on small niches in the rocks. There was one nest on the Murre ledge fully exposed on the

bare rock. Many of the more exposed nests showed unmistakable signs of having been pilfered by the crows.

The eggs examined ranged from freshly laid to nearly half incubated. Nowhere did we find young birds, nor even pipped eggs. Evidently this was the laying period for this species.

The nests were for the most part well constructed affairs of grass which had been gathered in the immediate vicinity of the nest. The depression in the center varied from nearly level to at least four inches. In short, the many nests examined did not differ materially in construction from nests of the Laughing Gull, which I am familiar with, nor from descriptions of the nests of other large gulls.

The full nest complement of these gulls is three eggs. It is likely that nests containing one or two eggs had been pilfered by the crows. Nothing of a positive nature was learned about the order of deposition of the eggs, but there was some evidence for thinking that an interval of one day occurs. The color and markings of the eggs vary a good deal, both between different sets of eggs as well as within the same set, but the markings and shape are typically gull-like.

At no time of day or night were the gulls quiet. Some individuals could be seen or heard flying about the island at any time, and the air was always full of their calls. The ordinary cackling calls were various, some bearing a close resemblance to the characteristic 'laughing' of the Laughing Gull, others being shared by no other species known to me. There were long-drawn calls which reminded one of certain calls of the Herring Gull. At no time were we able to observe these birds in an undisturbed frame of mind, much to our regret. The tent was inconspicuous and well hidden, but the birds seemed to continuously remember our presence. Although we remained quiet and hidden for long periods there was scarcely a lull in the frantic screamings, and the slightest stir was the signal for a storm of vituperation from the nearest sentinel. Instantly every perched bird stood at attention or vaulted off into space, while every flying bird responded with voice and wing. The birds, startled from their perches all about the island, wove a webb of white

across the blue of sky and sea. One could not glance in any direction without a sense of dizziness from the rapidly changing figures of the webb.

There were perhaps 500 nesting pairs on the island, making a thousand birds; but this is a mere estimate. An occasional Western Gull seen among the lighter colored Glaucus-winged, led us to estimate their numbers at fifty or thereabouts.

THE YEAR 1908 IN SOUTHEASTERN MICHIGAN.

BY P. A. TAVERNER, HIGHLAND PARK, MICH.

The year of 1908, in the neighborhood of Detroit, Mich., was an abnormal, and in some ways a rather interesting, one. The spring was much delayed and remained cold long beyond its usual custom. The previous winter was relatively birdless and uninteresting. The weather was about normally cold, but February 5 a heavy sleet storm came, with a temperature for a day ranging from 9 to 37 degrees. There was at the time a foot of snow on the ground, and the result can be readily imagined. The snow was heavily crusted and the Bob-whites, that up to that time had wintered well, suffered severely. The winter of 1903-04 had practically wiped the species out in this section, and under a protective game law, enacted for this purpose, the birds had just begun to regain their normal numbers. This last blow completely undid the good work of the past three years, locally at least, and, as a result, during the past spring, summer and fall the quail I have seen could be counted on the fingers of one hand.

March was not far from normal in temperature, as also was early April, though during the latter part it steadily refused to warm up as expected. This backwardness extended well into May and all the migrations were delayed in consequence. It was not until May 10 that any real spring weather arrived, and up to that time we had to keep the furnace going continuously. Normal years I regard May 4 as marking about the

height of the warbler migration. This year, however, there were practically no warblers present until the 17th, when they rushed through in almost a day, hardly pausing en route long enough to feed. The consequence was that many common species were barely noted and others passed through entirely unobserved. This was in striking contrast with the spring previous, which was also a much delayed season, with the difference that the cold weather lasted longer and caught many species which were here with us, preventing them from departing and giving us extraordinary opportunities for observing them. One thing I noticed both years. Cold days, after the arrival of the more delicate species, most of the warblers were found feeding on the ground, and in the open fields bordering on their usual woodland haunts. Most likely the caterpillars, worms, and flies forming the staple articles of their food supply, were numbed with the cold, and had lost their hold upon the branches of the trees, and had fallen to the ground.

The summer was neither very hot nor very cool, but it was very dry. June and July received but half their normal precipitation. The first half of August received its share of rain, but beginning the 19th, the longest dry spell set in that has been known in this section since the establishment of the meterological records, thirty-eight years ago. From then on no rain fell until September 28, when a little over half an inch fell, just sufficient to lay the dust for a day or so. During October we had a total of 1.49 inches instead of 2.36, which was our due. The effect was interesting if not pleasant. Many crops ripened before they were well filled out, and trees and shrubs went into their winter hibernation some weeks earlier than usual. The maples and other brilliantly colored fall leaves simply turned yellow and fell to the ground with little if any display of color, and the last of September the woods had assumed almost the appearance of late October. Certain insect life was profoundly affected; notably the genus *Catocala,* the Underwing Moths. It was supposed that they were unable to work their way up through the baked ground and issue from their chrysalid state. Through the first of August, while we had rain, they were unusually abundant for that

time of year, but as soon as the drouth began to make itself felt they disappeared, and through September, about the second week of which they should be at their commonest, we "suggared" night after night, but scarcely a moth came to our baits. The electric lights, that usually attract great numbers of insects, were almost deserted; butterflies and beetles were also scarce, and the summer, from a lepidopteral standpoint, was a disappointment.

That this had a powerful effect on bird life can hardly be doubted and, I think in consequence, some species departed south rather earlier than they would otherwise have done. From the vicinity of Ann Arbor I get reports that warblers were unusually abundant this fall. This, however, hardly agrees with my experience here. I found them, if anything, rather scarce; though this might well have been more apparent than real, through not being in the proper places at the right time. With it all, however, a considerable amount of rather interesting data has been gathered in various directions, some of the most striking of which I here copy from my note-books. Some of this has been heretofore published in the Auk, but in putting it all together a little repetition will do no harm.

As indicated in the last number of the Bulletin in the Pelee list, last winter we were favored with another visit of Brunnich's Murre. The cause or causes that drive this typically arctic bird out of Hudson's Bay into our inland lake waters is one of the interesting mysteries of ornithology. Mr. J. H. Fleming has investigated the subject with great care (Pro. IV, Int. Cong. pp. 528-543) and supposes that they were caught between the field ice of the Bay and the shore and thus forced out. On our Great Lakes they show a great preference to following the shore-line, and seem to follow it on until they drop with exhaustion. It may be that this headstrong peculiarity is the cause of their undoing. Forced on a flight for open water, some of them follow the shore-line south and finally find themselves in the bottom of James Bay. Still insisting in keeping on, instead of turning back, they ascend one of the tributaries to its sources, cross the ridge of land to the head waters of the Ottawa and so to the St. Lawrence

River, where they first appear to the observation of science. However this may be, it is pretty certain that none ever return to their home habitat to tell the tale of their travels. Once away from their arctic home they all die of starvation. Even those that work down the St. Lawrence to salt water seem to meet the same fate. The food habits of the species seems never to have been worked out, and it is at present impossible to say why they are unable to eke out a living in the lower latitudes. Had some of the Arctic expeditions collected stomachs as well as bird skins this interesting little question might be readily solved. There is one question that comes up. The first occurrence of the Murre flight on the Great Lakes seems to have been in 1893. Now Hudson's Bay has been freezing, and the wind has been blowing the ice about year after year. Why then is it that it has only been of late that the species has appeared here? Though this has so far failed to receive satisfactory answer, Mr. Fleming's theory remains the most probable one and, until a better one is advanced, forms the only working hypothesis we have.

At any rate, since 1893, almost yearly, the birds have appeared in late November and early December on Lake Ontario in greater or less numbers, have struggled on and on until their strength left them and they sank down wearily in the lake, their bodies marking the final limit of their flight. Usually but few of them get farther in this direction than this end of Lake Ontario, but occasionally considerable numbers have appeared as far up as Lake St. Clair. This last winter was one of these latter cases.

November 30 nine were seen off Grosse Point at the head of the Detroit River, and three were taken. December 3 one was taken on Lake Erie, near Munroe. December 7 I received one from Windmill Point, Lake St. Clair, and two more were taken near Munroe at different times during the same month. A Point Pelee bird has already appeared in these pages. All examined were in the same state of emaciation.

March 28, a live Yellow Rail was brought to me. It had been caught by a dog, and was one of two seen. This bird is rare enough at any time to make it something of an acquisi-

tion, but to get it at this early date was considerable of a surprise (Auk, 1908, p. 327).

Red-breasted Mergansers are usually rather scarce on the River, being generally far outnumbered by their relative, the American Merganser. This spring quite a number were brought in to the taxidermists to be mounted.

April 6 an interesting Canada Goose was taken on the Flats and brought in to be mounted. Its head and neck were of normal color, the remainder of the body was albinistic, especially the upper back, sides and under parts. The rump, tail and wings are darker, but still much bleached and whitened. The shooter said that it had been noticed in the same vicinity for several springs and repeated attempts had been made to take it. The bird was very conspicuous and could be easily recognized from a distance. This is a fact of some little migrational interest, bearing, as it does, on the subject of individuals following identical migration routes year after year, a fact easy to believe but difficult to demonstrate.

About April 26 large numbers of Horned Grebe put in an appearance on the upper Detroit River. One gunner that I heard of shot thirty one afternoon from the head of Belle Isle. Mr. Norman A. Wood writes me from Ann Arbor that this spring he saw more of this species there than he ever saw before.

May 29 an American White Pelican was killed at the St. Clair Flats and brought in to the taxidermist's, where I examined it. To my knowledge there is but one other record for the county.

May 3 a Bartramian Sandpiper was shot by some trapshooters almost within the city limits. The publication of this record in the Auk, 1908, 328, brought forth other data of the bird's occurrence in the county, Wood *ibid*, 473. According to this authority, the bird was met with this spring in Livonia and Canton Townships. Our last previous date is recorded by Mr. Swales, Auk, 1904, 84, east of Detroit, October 20, 1903. This bird from once being quite common is now rare and extremely local in its haunts. Doubtless a few still breed in isolated localities, but it is a pity that this fine

bird should be on the verge of extinction in the state. Its fondness for dry upland fields, however, brings it too closely in contact with our rural civilization and it falls easy prey to the farmer boy and his shotgun.

May 9, that daintiest of the waders, Wilson's Phalarope, occurred here again. There is but one spot in the county where it has so far been seen; a small pond or mud hole of two or three acres in extent a few miles south of the city. Apparently a few stop here for a few days in early May each spring, though as far as I know, they are the only ones in the county. The above date one was observed and taken.

May 5, 1906, I watched a high-plumaged female here for half an hour or more as it swam about in the water, cutting circles and figures like a big bright-colored whirligig-beetle, and leaving behind it long lines of wavelets in the water that curved and intersected themselves a hundred times, sparkling in the sun. Ever and anon it made quick passes with its rapier-like little bill to right or left, striking out with a straight, even thrust and immediate recovery like a practiced fencer, as it gleaned some toothsome morsel from the surface of the water. Between whiles it arched its slender neck in the prettiest curves imaginable, glancing rapidly around to see that nothing escaped; or looked down through the water directly beneath with an air of unconscious gravity, combined with a hasty eagerness that would have been comical had it been less full of grace. Its striking colors, nervous energy, quick harmonious movement, combined with perfect poise and self-possession made it a rarely charming picture there in the bright sunshine and black water.

May 16 I had a little experience with a Whippoorwill that was of some interest. The bird fell to my gun with a broken wing. On going to pick it up it spread its wings over the ground and ruffled its feathers until it appeared twice its natural size, opened its cavernous mouth to its widest extent and hissed or blew at me in exactly the same manner as does the Hog-nosed Snake or Blowing Adder. The sound was quite loud, and could be heard distinctly while standing several paces distant. The sight of that great expanse of sickly

pink mouth, ending in a black hole of a gullet, together with the unexpected and threatening noise, was startling, and would, I doubt not, have caused the sturdiest hawk to hesitate a moment had he paused long enough to see it.

The Gray-cheeked Thrush is generally silent as far as song goes, as it passes through here. May 16, however, one broke the rule and favored us with selections that are usually reserved for the more northern home. He sat on a telegraph wire passing the rear of the house and there sang all one late afternoon. The song was too rich, varied and illusive to put into words. Some day, perhaps, some one will perfect a method of recording bird songs by which all their beauty can be preserved. So far such attempts have been futile to the masses, and of use to the few but to stimulate the imagination to the memory of songs once heard before.

White-crowned Sparrows have been rather scarce in this section since the fall of 1904. Since then and up to this spring the numbers of this species I have seen have been remarkably few. This year, however, they have been more common, and I have again noted them in their usual numbers, both spring and fall.

August 9 I heard and watched a Carolina Wren sing for some time in almost the same locality where I took another one August 11, 1906, as described in the Auk, 1907, 147. It was deeply interested in exploring the recesses of an old stump and brush pile. Led hither by its bubbling bursts of song, I approached very closely. It saw me, but that did not hinder its continuing the work in hand. It kept right on, merely satisfying its curiosity with an occasional peek-a-boo look at me from under or over or around a bit of stick, then exploding with a perfectly indiscribable burst of song, afterwards regarding me with a sparkling black eye and a quizzical twist of the head, as if to say, "You can't do that." And I had to admit that I could not.

It is rather a peculiar coincidence that the first and second records for this species in the county should have been made in spots not a hundred yards removed from each other and within three days of the same date, though two years apart.

August 22 the same bird, or another in the same place, was observed. It is to be hoped that the species forms a permanent settlement with us as it would form a most interesting addition to our avi-fauna.

The resident Woodcock covers seem pretty well depleted this summer, and in places where one or two can usually be found through the summer none were seen until the migrants came in in October. The cause of this is hard to tell unless it was the general æstivation of the marshy grounds driving them out to seek food and shelter elsewhere, though this did not occur until August, and their absence was noticed as early as April.

August 9 I took an Underwing Moth (*Catocala cara*) that had some ornithological interest. Across the fore part of both upper and lower wings appears a V-shaped mark, sharp and clear, as if made by a knife, where the colored scales have been removed. It is the mark made by the snap of a bird's bill and so clearly shaped is it, that the species of the bird can be easily recognized. It was evidently a Crested Flycatcher whose sharp eyes discovered this moth asleep on the tree bark and coveted it. Evidently the moth disposed otherwise in that case, only to be secured later in my collecting bottle This moth, as it sleeps in the day time against the bark with its wings folded, so exactly matches the surface that it is on as to escape all but the closest scrutiny. Evidently, however, protective coloration has met its match in the sharp eye of the flycatcher. This is not the moth's only protection. It usually sleeps on the under side of a trunk with its head down. On the approach of an enemy it waits until the last moment before being touched and then drops with a disconcerting suddenness that usually baffles the inexperienced, and often the experienced as well. Then off it goes with a strong, though jerky flight, alternately displaying and concealing the brilliant red and black banding of its hind wings in a manner that makes it most difficult to follow even with the eye. From the positions of the bill marks on both wings it is evident that the attempt to capture was made while the moth was sitting quietly. Once caught its strength and quickness had enabled it

to tear away and once free and flying it would have to be a quick flycatcher to capture it again.

It seems as if the Cape May Warbler has increased considerably in numbers the last few years. It was once regarded as the rarest of our Warblers, but now its observation arouses but mild enthusiasm. Especially is this true in the fall. September 5 I saw what I took to be a juvenile male, and the 20th following I took an adult male in almost the same locality.

The first fall Lincoln Sparrow was observed and taken September 13. This is our earliest fall date for the species, most of our arrival dates falling after the first of October. It is so secretive a bird, however, and so resembles the Song Sparrow in the hasty glimpses that we usually get that it is one of the easiest birds we have to overlook.

The same day, September 13, Mr. Albert Jones, of this city, took a Golden Plover and a Baird's Sandpiper on the little mud hole before spoken of under Wilson's Phalarope. For the present known status of the former, see Auk, 1907, 141.

Baird's Sandpiper I have long looked for, as some were taken some years ago near the city. May 4, 1907, I saw a small group of sandpipers in this same locality that I was confident belonged to this species, but being unable to take any could not coroborate my identification. They may vary in numbers during migrations here, but they certainly are not a common species with us.

September 27, took a very early Fox Sparrow. Our usual dates for the arrival of this species fall in early October.

The same day took a juvenile Philadelphia Vireo. Though this species has been reported as a common fall migrant, this is the first bird I have seen in this locality, in spite of careful search for the past five years.

October 21 and 31, single Old-squaw Ducks were brought in to be mounted at the taxidermist's. These are early records also. We usually do not see them until about November 7. This is far from being a common species on the river.

Through October and November various reports have come in of the prevalence of various winter birds, such as Pine Siskins, American and White-winged Crossbills, Redpolls, and

Snowy Owls in surrounding territory; so present indications are that this winter will be a most interesting one from an ornithological standpoint, and it will be well to keep sharp eyes open during the coming months for our rare winter visitors.

BIRD NOTES FROM MIDDLE WESTERN OHIO.

BY W. F. HENNINGER.

Some of the observations made during 1908 at New Bremen, Ohio, in the region between the Grand and the Loramie Reservoirs, also including some field work at these Reservoirs are of more than local importance and as my pastoral work carries me over approximately 50 square miles they are certainly typical of the entire region.

On February 5th, after a funeral I met a flock of some 20 to 25 Lapland Longspurs (*Calcarius lapponicus*) in company with some Prairie Horned Larks on small knolls in fields covered entirely with slushy snow.

Migration started in briskly on February 28 up till March 11th, then it seemed to be checked till March 24th, the Purple Martin not showing up till April 1st. This continued till April 26th. April 24th bringing the Wood Thrush, and the Baltimore Oriole, April 25th the Scarlet Tanager, the 26th the Yellow Warbler and the American Redstart. Two weeks of rain and cold weather set in with the evening of April 26th. Some of the earlier birds, however, were nesting by this time.

April 27th a fine set of five eggs of *Accipiter cooperi* were taken out of a nest 40 feet up in a pin oak, 3½ miles east of New Bremen in Shelby County. At the same place a small heronry of some 10 to 12 nests of the Great Blue Heron was found with the old ones already on their nests. The same date showed a Bluebird's nest with 2 young and a Killdeer's nest with 4 young just out of the shells. A Blue Jay's nest with six fresh eggs was found on the next day, but the little Field Sparrow did not have its full complement of four eggs till May 12. In spite of the bad weather migrants continued to arrive, the most interesting ones being the Savannah Sparrow on May 6th, and the Cape May Warbler on May 11th. May 14th

proved a record breaker as the list in the June Number of the Wilson Bulletin shows a total record of 133 species seen, this being perhaps the best inland record ever made on a single day. On May 28th a heavily incubated set of four Woodcock's eggs was brought to me, found 3½ miles northwest of town in a damp woods. Farther investigations show that the Woodcock, while certainly not a common bird is far from being threatened with extermination in this region as well as at Tiffin, my former residence. It has been rather common this fall, the last specimen was shot and brought to me on October 27th.

The Summer observations, which were but few as the writer was kept very busy with his professional duties, nevertheless enabled me to find the Coot and Pied-billed Grebe present in some numbers on the Grand Reservoir, and future observations may prove them breeders. Inquiry also showed that two specimens of the Snowy Owl, one of the Barn Owl and one of the White Pelican (mounted in St. Marys) had been taken in former years.

The Fall migration was slow, the birds lingering long, owing to the beautiful weather. On October 1st, quite a flight of Hawks occurred, the Marsh Hawk coming in in great numbers. The same date marked the disappearance of Bewick's Wren, which is rare here and apparently not yet a resident. October 8th brought the last Yellowbilled Cuckoo and Blackthroated Green Warblers. October 23rd a solitary Gadwall was found on the Grand Reservoir, as also a number of waders, Yellowlegs, Greater Yellowlegs one Ruddy Turnstone and six American Golden Plovers, quite a record for the state. This record was confirmed when on October 28th I received in the flesh a pair of American Golden Plovers, a pair of Wilson's Snipe, a Baird's Sandpiper, all shot the previous day at the Loramie Reservoir in Shelby County, thus authentically proving that the Golden Plover still crosses Ohio in some numbers during the fall migration. On May 11th, one Kirtland's Warbler was seen, but it could unfortunately not be shot. On the same day a Longbilled Marsh Wren was shot at its nest, a typical specimen and evidently the breeding form, *iliacus* not coming into

the State of Ohio. A specimen of the Short-billed Marsh Wren was caught alive on September 20th in town, the bird being stunned from flying against the large window pane of a barber shop.

The Wood Duck, while fairly rare, was found to breed in several pairs throughout this region. The Prothonotary Warbler was seen on May 14th at the Grand Reservoir but a breeding record could not be established so far. Future observations may have some more surprises in store.

OHIO RECORDS.

LYNDS JONES.

In recording the addition of a species to the list of Ohio birds it is in place to call attention to what now appears to be an unmistakable occurrence of a Brant in the state. The new record is:

SURF SCOTER.—*Oidemia perspicillata* (Linn.). This is given as No. 8 in the Hypothetical list of my Catalogue, and should now be placed on page 47 just preceding No. 50. The circumstances of capture are furnished me by Mr. E. J. Arrick, of McConnelsville, Morgan Co., who sent me a skin for identification. Two birds were discovered on the Muskingum river below McConnelsville, and both birds were captured on October 20, by Byron Barnes and Edwin Tannehill. The sex was not determined. This capture confirms suspicions that this species occurs within the state but is generally not recognized among those with somewhat similar plumage.

On page 226 of the same Catalogue *Branta bernicla* is recorded among the hypothetical records because no specimens had been secured, although the species had been reported as observed by Dr. Kirtland. Now that the White-bellied form has been eliminated there is more reason to include the species among Ohio birds, especially since there has been added to the observations two others. That of the writer and Mr. W. L. Dawson, on the Licking Reservoir on May 30, 1902, as re-

corded in Dawson's Birds of Ohio, page 644; and by Prof. G. C. Fisher, on Lewiston Reservoir, March 29, 1905. The latter record is based upon a captured specimen, and therefore should entitle the species to recognition as an Ohio bird.

The statement in the June, 1903, number of this Bulletin, page 103, that Bachman's Sparrow has not been found in Ohio since Dawson's records should be corrected. There have been several unpublished records, and at least one published—Wilson Bulletin, Sept., 1905, page 91.

Photo by Walter J. Hoxie.

THE WILSON BULLETIN

**A Quarterly Magazine Devoted to the Study of Living Birds.
Official Organ of the Wilson Ornithological Club.**

Edited by LYNDS JONES.

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EDITORIAL.

We have no disposition to close this volume of the Bulletin with a glorification resumé of past achievements nor to look into the future through rose-tinted glasses. We hope that the Bulletin has approved itself to all readers and has justified the increased subscription price, and we confidently expect to give to 1909 readers more pages, more illustrations, better matter, and stare at them with fewer errors. The faults have been painfully evident to the editor and seriously detract from the satisfaction he has felt in what he believes is improvement. The time at his disposal is so scanty that he has been obliged to leave unfulfilled some cherished plans which he expects to carry to fruition during the coming year.

There will appear in the next volume a series of papers which will cover the whole group of Falcones, possibly also covering the Vultures. The papers will be well illustrated with a view to depicting the recognition characters of each species, and brief life history sketches will accompany comprehensive descriptions of plumages. These papers are to be presented in response to numerous requests for something that will really make field identifications possible. Notes along the lines indicated, relating to any species, will be welcomed.

Another feature of the 1909 volume will be a list of the Birds of Cedar Point, Ohio, which lies opposite Point Pelee. This list will take the form of a comparative faunal list with frequent comparisons and comments relative to the two regions. It is believed that this comparison and discussion will throw some light upon the phenomena of migration as it occurs there and in adjoining regions.

Mr. Frank L. Burns promises a continuance of his interesting and valuable articles on Alexander Wilson. Few readers can appreciate the great expense of time and the wide range of reading which articles of this kind require. Most of us probably know very little about the life of the Father of American Ornithology and of the privations which were his in the preparation of his monumental work on American birds. We have only to remember that his was practically an untrodden field, and that interest in the birds needed to be awakened, in order to get any picture of him in the working out of his self-imposed task. Mr. Burns is enabling us to see Alexander Wilson as a real man.

There is involved in the editor's ideal for the Bulletin for 1909 the publication in liberal quantity of field work results which will make real contributions to our knowledge of the birds. Toward this end he earnestly hopes that every reader will become a co-laborer in making some definite study of some phase if bird-life, work the results over for the purpose of determining if some contribution has actually been made, and then without fail send it to the editor for publication. If a large number of persons interested in the birds will do something of this kind there is hope for large results. We are supposed to be a coöperating organization. Let's prove it this coming year.

As hitherto, an Index to the present volume will be mailed with the March number. It has not been possible to prepare it to incorporate in the present number.

FIELD NOTES.

NESTING OF THE PRAIRIE WARBLER IN OHIO.—On June 18th of this year I found a nest of the Prairie Warbler with four young, in the crotch of a small bush on a hillside near Bloom Switch, Scioto County, Ohio. This is the first authentic record of its breeding in the state, as I had only seen it building its nest on May 31, 1905, at the same place, but had to leave before the nest was finished and eggs were laid. W. F. HENNINGER, *New Bremen, Ohio.*

RESULT OF A HAILSTORM.—In July a violent hailstorm just before dark at Boulder, Colorado, is reported to have destroyed in a single

city lot seven or eight American Goldfinches, but a search failed to disclose a single dead bird of any other species, though Yellow Warblers and English Sparrows at least are as abundant in the vicinity as the Goldfinches. I could obtain no information as to difference in the shelter sought by the different species which would account for the partiality exhibited by the storm.

JUNIUS HENDERSON, *Boulder, Colo.*

GOLDEN EAGLE (*Aquila chrysaetos*) AT CADIZ, OHIO.—Mr. J. Bingham Bargar, who lives six miles south of Cadiz, wrote me recently in regard to a Golden Eagle he once shot and later had mounted. He writes: "It was first seen after a storm about December 1, 1887. We then saw it almost every day for a month. It lived on wild game, and when game was scarce it would take chickens. It finally killed a fine chicken, and I made an effort to trap it alive, but it broke the trap and got away. I followed it and was able to shoot it. It weighed fourteen pounds and twelve ounces, and measured seven feet, five and three-quarter inches from tip to tip of wings."

HARRY B. MCCONNELL.

CONCERNING PASSENGER PIGEON (*Ectopistes migratorius*).—In a conversation once with Dr. Beal, of Scio College, who is the author of the Beal Law, he told me that a guide he met while on a vacation trip in northern Michigan in 1903, could possibly throw some light on the mysterious disappearance of the Passenger Pigeon. The guide claims that after a great storm a number of years ago, countless numbers of Wild Pigeons were thrown upon the shore of the lake. Delbert Burdett, a farmer, living near Cadiz, claims that while at work cutting timber near St. Clairsville, Belmont County, Ohio, in September, 1898, a flock of "thousands of Wild Pigeons" suddenly appeared, and in alighting covered a field several acres in extent. A number of old farmers saw the flock and all agreed that the birds were Wild Pigeons. Mr. Burdett is familiar with a large number of birds and I questioned him rather closely as to the Pigeons, and have reason to believe his story is correct.

Cadiz, Ohio. HARRY B. MCCONNELL.

NOTES FROM CADIZ, OHIO.—HOLBOELL'S GREBE (*Colymbus holbollii*).—On February 6, 1905, some boys saw a strange bird fly against the telephone wires and fall to the ground in an alley in Cadiz, and as it was unable to continue its flight they picked it up and brought it to me to identify. It proved to be a Holbœll's Grebe, the first and only record I have of this bird for the county. The boys thought they might assist it to continue its journey by taking it up to the top of the Court House and pitching it out into space, expecting to see it take wing and fly away. This they did, but the

poor Grebe fell upon the roof of the building, rolled off, and striking the ground was picked up dead a few minutes later.

I have a record for the Louisiana Water-Thrush on March 31, 1907, and a farmer friend heard a Whippoor-will on March 30 of the same year.

I am frequently disappointed in being unable to make a record of several rather rare birds that I have reason to believe occasionally visit this region. For instance, a gentleman, who lived many years in the South and who is familiar with the Mockingbird, told me that he was awakened one morning in May of 1907 by its singing outside of his bedroom window. I have reasons for believing it has been seen in this county on several other occasions.

On July 3, 1904, I found Redstarts common on the wooded slope across the Ohio River from Steubenville, and also saw a Wilson's Thrush. A strange new song attracted my attention on that occasion, and after a while I was able to identify the singer, an Indigo Bunting, singing like a full-voiced warbler.

H. B. MCCONNELL.

LOON (*Gavia imber*). NEAR BERWYN, CHESTER COUNTY, PA.—The taking of a pair of this, our largest Diver, by C. N. Cass, in the Chester valley during the snowstorm of November 14, is of more than passing interest locally. According to report, a flock of waterfowl had passed up the Valley creek a short time previous to Mr. Cass' appearance with gun and fishing-rod, at the head of the small dam on the Chesterbrook farm; and about 4 p. m. a single bird flew down the creek, hitting the water along side of his mate, which had been resting quietly all the while, unknown to the fisherman on the upper side of the small farm bridge. A shot failed of any effect, even to drive them away, though the male was more than once on the wing; and the birds at one time could have been touched with his fishing-pole. Meanwhile his son had been sent to the nearest farm-house for a cartridge, with which the male was secured; another trip, and another cartridge laid low the still lingering female. They are now in my collection. Both are adults in winter plumage, and their stomachs were empty. The male weighed ten and a half pounds, and looked very much larger than the female.

The reluctance of the birds to leave the little, though quite deep, dam, of twenty feet in width; suggest injury or exhaustion of the female and unusual devotion on the part of the male.

The storm apparently moved north and northeastward from the South Atlantic coast, turning to snow by noon at this point; and it is probable that the migrating birds, already weary from long flight, became bewildered, since the species is almost unheard of in this neighborhood. FRANK L. BURNS, *Berwyn, Pa.*

BOOK REVIEWS.

THE BIRDS OF MAINE. By Ora Willis Knight, M.S., Bangor, Maine. 1908.

The undertaking of which this book is the product was no light one. Maine is a state of no mean area, and its topography presents many difficulties to the biological explorer; its coast line is fjord-like, and ranges of mountains and mountain masses and peaks present a varied biota.

Mr. Knight has done well to make this book largely a record of his own work, supplemented by rigidly culled and carefully selected material from other sources. He is to be heartily congratulated upon the excellence of his work in both directions.

There is a map of the state which represents the faunal areas, mountains and water courses, as a frontispiece. Following the introduction and acknowledgements there is a comprehensive "Summary of Characters of the Orders and Families (compiled with regard to those found in Maine)," with two photographs of the Canadian Ruffed Grouse for the purpose of mapping out the "Topography" of a bird. While these photographs are not as clear as drawn figures would be they serve the purpose fairly well, and possess the advantage of representing an actual specimen.

The text of the book and the bibliography occupy 652 pages exclusive of 28 full page half-tone plates. The double column index is a model of its kind.

The treatment of the species follows the latest A. O. U. published arrangement and nomenclature, and numbering. There is added a list of local names, mostly applicable to the state of Maine. Following this list of local names there is a brief but careful description of the species in all known plumages, with measurements in inches. The general geographical distribution precedes a comprehensive Maine county record with the authority given for each county. In larger type there is a discussion of the species in its relations in general, something given about its habits, its nest and eggs described, and a discussion of its food and economic status when it is of regular occurrence in the state.

The contribution which this book makes to our knowledge of the birds lies in the record which it gives of the field work which Mr. Knight has done. There is new light shed upon the time and manner of nesting, the period of incubation, the length of the stay of the young birds in the nest, food habits, migration, song, and other topics. Not all of the topics are treated from a new standpoint under each species, indeed, sometimes the author has had nothing new to offer, but often some one or more of the topics find more or less extended treatment under a species.

We may congratulate ourselves upon the appearance of this book

as one well worthy of reference, and the author upon the consummation of a long cherished plan. L. J.

Camps and Cruises of an Ornithologist. By Frank M. Chapman. A book of 439 pages and 250 photographs from nature by the author.

It is entirely fitting that Mr. Chapman should decide to share with a wider group of people than even the multitudes which visit the splendid collections which find a home in the American Museum of Natural History, his many field experiences in securing the material for museum groups; and the sincere thanks of this larger public are due him for the opportunity he thus affords them of seeing the many different places which have been the scenes of his work.

After a few short excursions "About Home" the author takes us to Gardiner's and Cobb's Islands on the Atlantic coast, and from there to Florida, where "Pelican Island, The Florida Great Blue Heron, The Water Turkey, The American Egret, and Cuthbert Rookery" are illustrated and described; then to Bahama, where "The Flamingo, The Egg Birds, The Booby and the Man-o'-War Bird" furnish texts for delightful pictures and interesting descriptions. Then we are taken out onto the Plains for studies of "The Prairie Hen, A Golden Eagle's Nest, and Cactus Desert Bird-Life"; and from here to California for studies of "The Costal Mountains of Piru, The Coast of Monterey, The Farallones, The San Joaquin Valley of Los Banos, Lower Klamath Lake, and The Sierras"; and lastly for this country to western Canada for studies on "The Prairies, The Plains, The Mountains, and The White Pelican." The book ends with "Impressions of English Bird-Life."

The book is written in Mr. Chapman's most charming style, and it is needless to say that the photographs are unexcelled. We can think of nothing which would make a better Christmas present than this book.

The introductory pages deal with the methods of successful bird photography, including the camera equipment and the construction of blinds. The author points out that the blind is just as necessary for any intensive study of birds as it is in successful photography. We are also pleased to note that the author strongly emphasizes the importance of home studies of bird life and the great need of such studies, in the following words: "Continuous and definitely directed observation is the secret of success in the study of bird-life; and only that permanency of residence which permits us to keep a close watch on the species, through the year, and on the individual through the nesting season, will enable us to write an adequate history of its life." L. J.

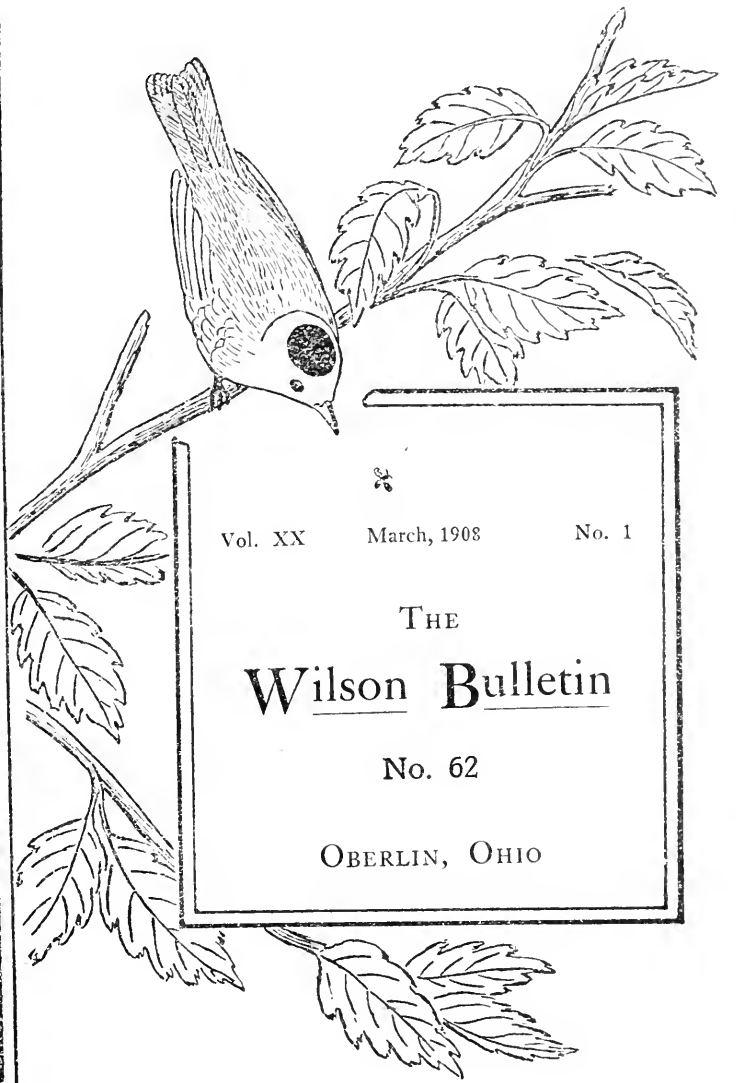
NOTICES OF RECENT LITERATURE.

On the "Fundamental Bars" in Feathers. This term, adopted by Dr. Oscar Riddle, of the University of Chicago, applies to certain bars other than color bars, which may be found in many, perhaps most feathers. In their most pronounced form they are clearly defects in the formation of barbule or even barb elements. The subject has been studied by Drs. C. O. Whitman and R. M. Strong, of the University of Chicago, with special reference to the occurrences in pigeons and doves, and by Dr. J. E. Duerden, Professor of Zoology, Rhodes University College, Grahamstown, South Africa, with special reference to its occurrence in Ostriches and its possible eradication because of its injury to the ostrich plume industry, and by Dr. Oscar Riddle, of the University of Chicago, from a purely experimental stand point. The writer has also given some attention to the subject. The conclusion arrived at by all who have been named above is that these "Fundamental Bars" are due to malnutrition of the bird during the formation of the feather, and that in at least pronounced cases of such barring, all of the feathers of the plumage which are in process of formation during the period of malnutrition will be so barred, often in varying degree. It must be clear that the cause of malnutrition may be various. Experimentally the bars may be produced by starving the bird. Impaired health of the bird, due to whatever cause, has also been proved to produce bars. L. J.

Food Habits of the Grosbeaks. By W. L. McAtee, U. S. Department of Agriculture, Bureau of Biological Survey, Bulletin No. 32.

In a detailed discussion of 92 pages, covering all of the Grosbeaks of the United States, the author concludes that while some of the species eat fruits and grains to some extent, their valuable services in destroying injurious insects far outweighs what little they destroy for the fruit-grower and the farmer. Scare-crows and wire nettings may be effectually employed to lessen their depredations without resorting to destruction of the birds. L. J.

Index to Vol. XX, 1908.



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THE

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No. 62

OBERLIN, OHIO

WILSON ORNITHOLOGICAL CLUB

CONTENTS.

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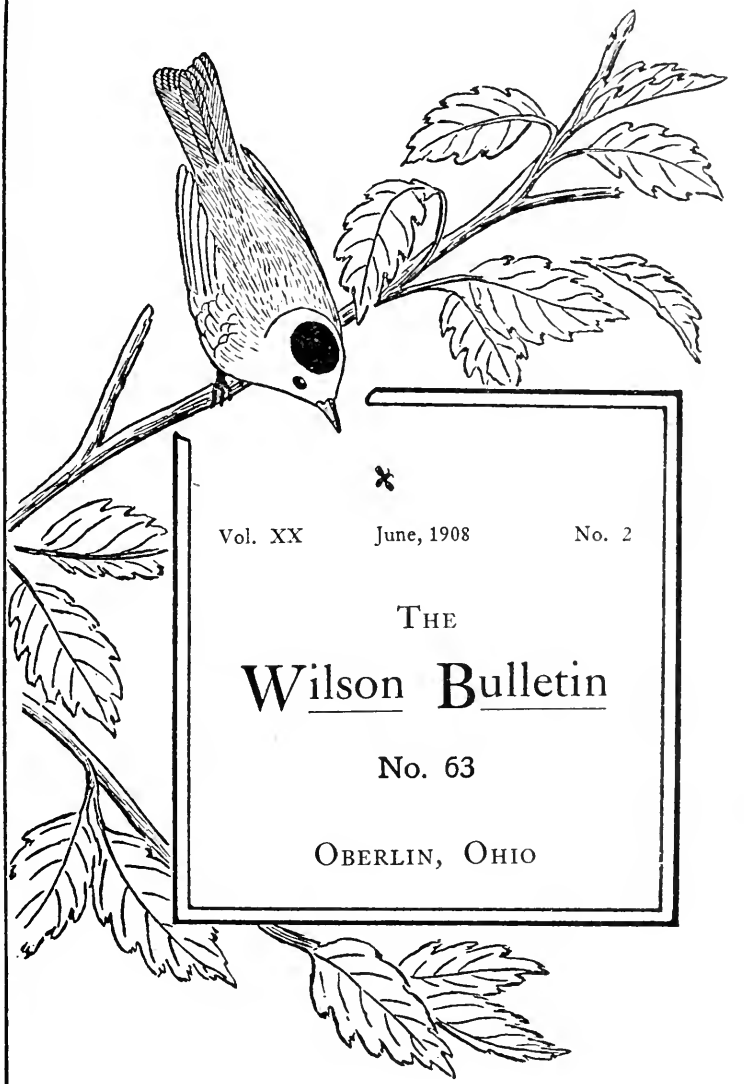

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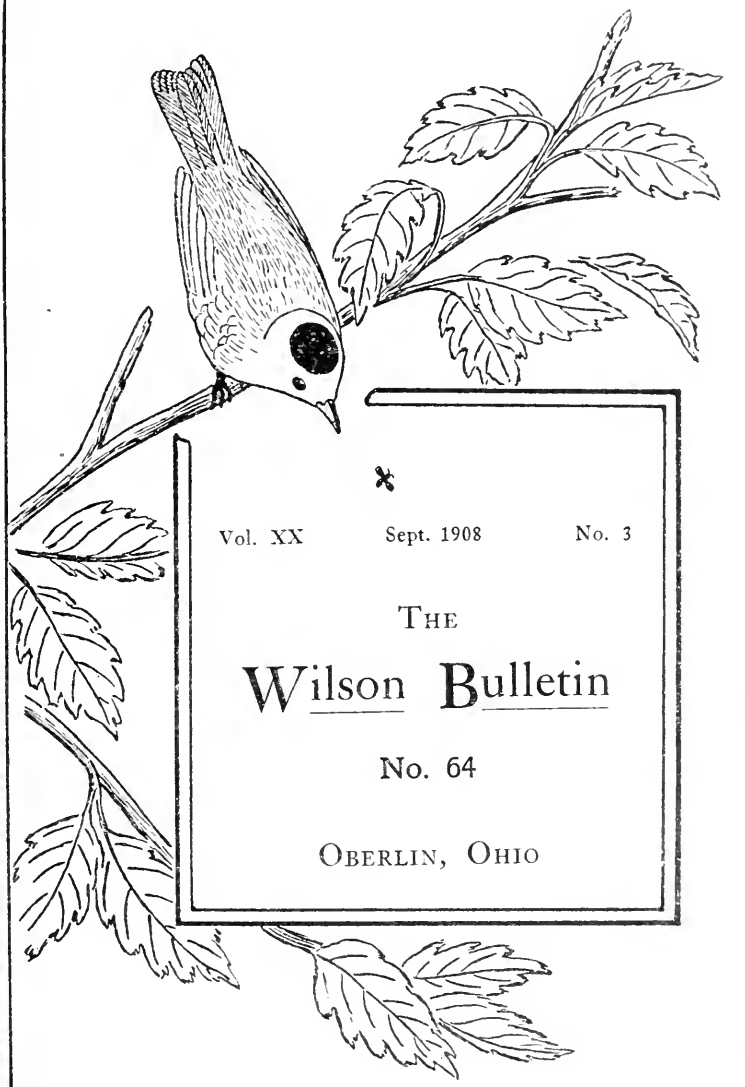

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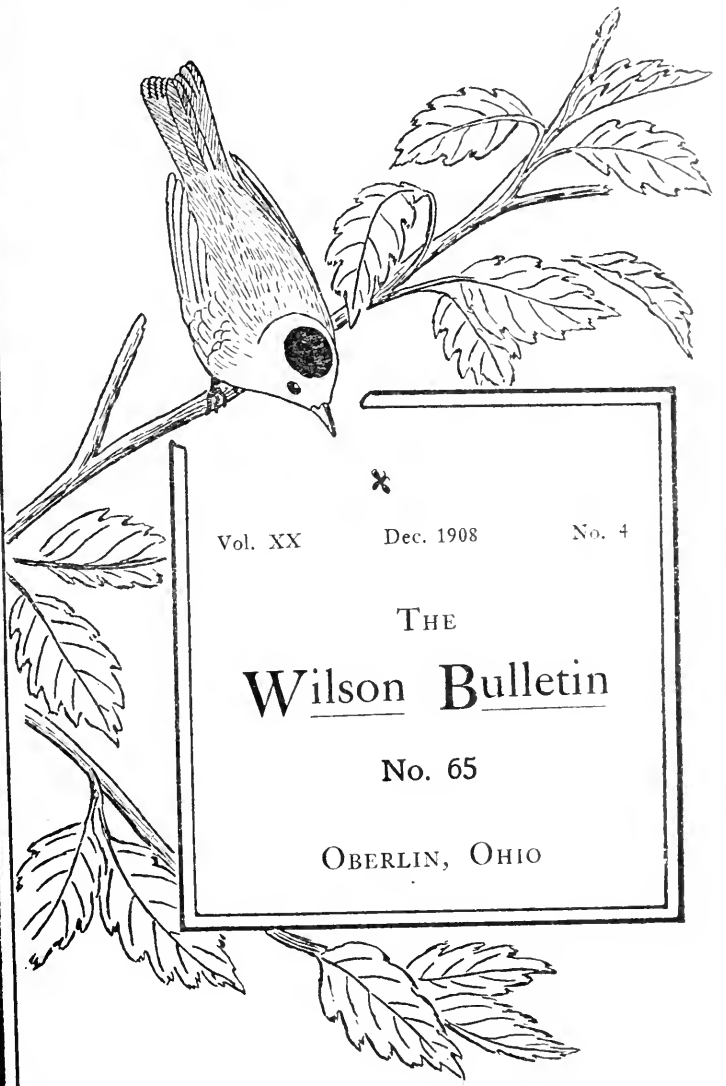

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