

gleaning small insects, and ever and anon giving vent to its sharp chip. I never saw it frequent a coniferous tree, its favorite hunting area being a batch of small birch trees, in several of which it would spend long intervals at a time, going very carefully over them in its incessant search, I presume, for the small aphides that infest these trees. I might here mention that the bird obtained the day previous was shot from a sapling aspen, so that it looks as if small deciduous trees, and no doubt shrubby, are preferred to coniferous or the taller deciduous trees.

175. *Hylocichla aliciae aliciae* (Baird). GRAY-CHEEKED THRUSH.— Rare transient; September 24, 1919. For some years I have waited in vain for a fitting opportunity of recording this thrush, for although I think I have seen it on two or three occasions, the view has never been sufficiently long or convincing enough to warrant its inclusion in my list. However, on the above date I came unawares upon a thrush standing in a very erect posture, on the bough of a small birch tree, and the light being good I was able to see distinctly that there was no perceptible buffy tinge on either the eye ring or cheeks, the breast being only slightly tinged with this color. In addition to this, the bird certainly struck me at once as being somewhat larger than any thrush I had come across before, and for these reasons I have no hesitation in now including it in my list of Hatley birds, especially, as very soon afterwards, I was able to compare it with an Olive-backed Thrush, which was also in the immediate neighborhood.

Hatley, Que.

BOHEMIAN WAXWING (*BOMBYCILLA GARRULA*) IN NEW ENGLAND.

BY HORACE W. WRIGHT.

ON February 12, 1919, in a walk around Chestnut Hill reservoir, Boston, I came upon a flock of about thirty Cedar Waxwings (*Bombycilla cedrorum*) in a plot of berry-bearing shrubs situated near the reservoir basin. The Cedarbirds were flying back and forth from one shrub to another for the berries and were giving their characteristic sibilant notes. But I heard another call than theirs, and yet saw no other bird than waxwings. The call consisted of several *chips* given in close repetition, not as separate calls, but forming one call, slightly rolled together like a short trill and constituting a chatter, repeated after an interval. Soon the bird from which these calls came, presented itself fully to view upon a branch of a low tree standing among the shrubs

and rising some ten feet higher than they. In size it was distinctly larger than the Cedarbirds, and gradually all the features which differentiate *garrula* from *cedrorum* were clearly observed one after another; namely, the entire absence of yellow on the underparts, which were pure gray; the definite chestnut patch of the under tail-coverts; the tint of a similar color on forehead and cheeks extending up on to the crest feathers, especially the sides of the crest; the greater size of crest as compared with that of *cedrorum*; the tips of the primary coverts and secondaries white, definitely so marked, but not conspicuously, indicating, perhaps, the individual as a female or immature male; an absence of yellow on the tips of the primaries, further suggesting that the bird was not an adult male, although the variation in these markings may be individualistic and not due to sex or age. It also lacked the red sealing-wax-like tips to the secondaries, and the band of yellow at tip of tail was not broader than *B. cedrorum* possesses.

This Bohemian Waxwing was again seen on the 17th, when Mr. A. W. Upham was my companion. As before, it was in company with a flock of Cedar Waxwings, on this second occasion numbering about forty birds, and the flock was feeding in the same plot of shrubs. The chatter call was again heard, but only two or three times. And presently the flock took wing far away over a neighboring hill, gone evidently for a while or until desire for food would bring it back again. My first observation had been for a half-hour from about 11.30 to 12 m., and I had then left the flock in the locality where found. This second observation was at about 9.45 a. m., and within ten minutes the flock took its long flight over the hill. We were interested to observe that in their flight the Bohemian closely accompanied its companions, but all the time a little separated from the close bunch which the Cedarbirds constituted, and appearing even at considerable distance in the sky distinctly larger than they.

Mr. Upham has given me this description of the note or call as he heard it on this occasion, and the description has the value of being given by one whose ear has been musically trained. Mr. Upham states: "Of course, I only heard it two or three times. The note or call that I listened to, I would describe in this way—a short, rapid, wooden, and unmusical trill. The Maryland

Yellow-throat has a call which bears some resemblance to it, and it seemed to me that it is very much like the peculiar 'chatter' of the Barn Swallows, with which they intersperse their more musical twitterings."

Mr. Charles E. Clark has informed me that on the 16th he saw the *B. garrula* with the flock of *B. cedrorum* between 9 and 10 A. M. near the bank of the reservoir at a point only slightly removed from the plot of shrubs. He states that the *garrula* was first seen perching on a large bough of an oak tree standing beside the park drive, and the *cedrorum* were flying back and forth to red cedars on the bank; that it took several mouthfuls of melting snow, there being a small accumulation on the larger branches, and visited a nearby cedar.

On February 18, Mrs. Edmund Bridge, Miss Annie W. Cobb, and Mrs. E. R. Jump together had an interesting observation of this Bohemian Waxwing. Mrs. Bridge informs me that they reached the locality about 9.15, and that the flock was in the plot of shrubbery when they arrived. Mrs. Bridge states: "The Bohemian Waxwing kept rather to itself on a bare twig. The only note heard was a loud, oft-repeated *chip* like a Chipping Sparrow's call." It is further stated that the birds after feeding on the berries flew down upon the stones embedded in the shore of the reservoir and drank, and then about 10 o'clock, as on the preceding days, took their long flight over the neighboring hill.

Mrs. Grace King Earle reports that with her son she observed this Bohemian Waxwing, together with a few of the flock of Cedar Waxwings, on February 24, at 8.30 a. m.; the birds were still feeding in the triangle of shrubs. Mrs. Earle writes: "My son noted that the Bohemian Waxwing gave a sort of harsh rattle. In their flight the Bohemian kept quite a little to one side of the others."

Miss Bertha E. Davis informs me that on March 2, between 9.30 and 10 a. m., she saw this flock of Cedar Waxwings with the Bohemian in the same locality and was impressed with the Bohemian's quite distinctive note.

Miss Nora K. Holman writes that on this same day, March 2 in the afternoon at about 3.15, she saw this Bohemian Waxwing with about twenty Cedarbirds in hawthorns near the shore of the

reservoir, feeding on the berries. Miss Holman states that she viewed the Bohemian at a distance of ten feet only and observed the chestnut under tail-coverts.

I visited the Chestnut Hill section on February 28, March 7, 20 and 22, but saw no waxwings on either occasion. On March 22, however, as I approached the grounds of an estate on Hammond Street, just westward from the reservoir, I heard a noisy chatter unlike any bird voicing with which I had been familiar, but unfortunately this chattering ceased before I had opportunity to investigate, and I was, therefore, unable to determine whence it proceeded. I saw no waxwings, but the chatter was very suggestive of the notes I had heard when viewing the Bohemian on the first occasion, February 12. I am informed that many observers from day to day unsuccessfully sought to see this Bohemian after its presence had become known. But the wandering habit of waxwings would explain its lack of continuous daily constancy to one location, although occasionally reappearing there up to March 29, when its latest appearance was recorded.

It may be mentioned that on January 30 I had noted a flock of about thirty Cedar Waxwings in a big willow standing beside Beacon Street as it leads by the reservoir to Newton, and less than an eighth of a mile from the feeding ground later adopted by the flock. But on this occasion I heard no other calls than the lispng notes of the Cedarbirds, and upon looking the flock over they all appeared to have the yellow underparts. So my inference is that the Bohemian Waxwing, which became a companion of the flock, was not present with it on January 30. If it is correct to assume that *B. cedrorum* had moved up from the south on the early migration which brings the species to eastern Massachusetts in late January and in February, and that the *B. garrula* had gradually extended its flight from the far northwest along the northern tier of States to Boston, we may assign the meeting of the two types to a time between January 30 and February 12, on which date we have our first knowledge of the presence of the Bohemian. One individual only was seen on the several occasions. This bird evidently gladly availed of the companionship which its more southern relative afforded and became a constant member of the flock of *cedrorum*, without,

however, becoming an integral member thereof, as evidenced by its slight separateness in their longer flights and also when perching, which suggests that, when the time came for its return across country for northwestward, it would experience no difficulty in making this habitual slight separateness a complete separation.

Several other records of Bohemian Waxwing in Boston and vicinity in the season of 1919 have come to my knowledge through Mr. E. H. Forbush, State Ornithologist of Massachusetts, who has kindly placed them at my disposal, furnishing me the names and addresses of the several observers, that I might receive direct from them such detailed testimony as they were able to give.

Mr. A. M. Wilcox, of the Roslindale district of Boston, writes me that he saw five Bohemian Waxwings there about January 20, feeding on *Crataegus* berries; that they were seen twice in the same tree within an hour; that no Cedar Waxwings were with the Bohemians nor any in the near vicinity; that the distinguishing characteristics were the larger size and conspicuous white color on the wings; that he watched all winter and spring, but failed to observe the species again; that he is well acquainted with the common Cedar Waxwing; and that he has no doubt of the identification.

Miss Addie B. Hobbs states that at Essex, in the afternoon of March 8, she saw a Bohemian Waxwing with a large flock of Cedarbirds; that they seemed restless and easily disturbed; that each time they flew one bird remained somewhat behind the others; that resorting to a creeping approach she at length got within close range of the laggard of the flock and saw that it was a grayer bird than the Cedar Waxwings; that, as it turned, the white in the wings showed very plainly; that its crest had a ragged look compared with those of the Cedarbirds; and that it seemed quite fearless.

Mrs. George H. Mellen, of Newton Highlands, testifies that on March 29, the morning being cold and stormy, when at breakfast about 7.45, she saw from the dining-room bay a large flock of birds approaching the house. The flock settled on the trees and ground just outside. Quickly procuring her glasses, Mrs. Mellen perceived a Bohemian Waxwing about twenty feet from the window. She states that the thing which impressed her

most was the distinctness with which the bird stood out from the rest of the flock; that she had supposed detection would be difficult, but that no one accustomed to bird study could have failed to notice this bird, if looking over the flock with care. Everything was covered with wet, slippery snow, and all the birds were in more or less unusual attitudes as they could not find foothold. The Bohemian had his tail pushed down, much the same as a woodpecker, or as a Song Sparrow droops his, and thus well displayed the under tail-coverts. There were seventy-five to eighty birds in the flock. Mrs. Mellen's home, "Birdbanks," is about two miles from the Chestnut Hill reservoir in an air line, or possibly somewhat less. It is not unlikely that the Bohemian which she observed on March 29 was the bird which had been seen repeatedly in the grounds of the reservoir. And yet, in the light of the testimony which has been gathered, it may not unlikely have been another individual.

Mr. and Mrs. Gordon B. Wellman found a Bohemian Waxwing with a flock of about forty Cedar Waxwings beside a reservoir in Malden on April 25. On the following day, in company with them and Mrs. Edmund Bridge, I viewed the bird in the same locality, and it was again seen by the Wellmans on April 27. This was an occurrence of the species much later in the season than would be expected, and indicates that the Bohemian Waxwing, like the Evening Grosbeak, may be slow in taking its return flight to its far northern breeding grounds. My own records of Evening Grosbeaks indicate that ten individuals were still present in Chusted Park on the Brookline side on May 6, 1916, and I was informed that still later records of a few individuals there were obtained.

Dr. Thomas Barbour, in the October, 1919, issue of 'The Auk,'¹ states that at Beverly Farms, Massachusetts, there still remained in May [1919] a portion of a flock of seventy-five to a hundred Evening Grosbeaks which had appeared there about March 10, which portion was first seen about May 14 and did not disappear from the neighborhood until the night of May 19. Mr. F. C. Smith, in the same issue of 'The Auk,'² states that from May 5

¹ 'Auk,' XXXVI, Oct. 1919, p. 572.

² *Ibid.* p. 573.

to 10 [1919] at Boonville, N. H., he daily observed a flock of twenty Evening Grosbeaks, but that when again there on the 15th he could not find any of the birds. Thus it may be regarded as not unusual for some Evening Grosbeaks, when there has been a visitation of them during the winter and spring, to remain well into the month of May before disappearing.

Three other Massachusetts records for the season of 1919 which Mr. Forbush has transmitted to me, all from the western section of the State, are:

Greenfield, on testimony of Mr. Lyman T. Ruberg in a letter of March 10. Mr. Ruberg writes: "On Tuesday, February 25, about 10.30 A. M., I saw two Bohemian Waxwings. They were feeding on sumac tops in the Green River Valley, about four miles out of town. I should say that they were both males, as the wing markings were very distinct and the crest was prominent. I had a good look at them and am certain what they were. These birds were alone, no others with them." Mr. Ruberg has been a deputy fish and game warden for several years, Mr. Forbush informs me.

South Deerfield, on testimony of Mrs. J. E. Richards, who writes under date of February 26: "Last week two Bohemian Waxwings visited us. We know that they were not Cedarbirds from the white on the wings. We did not see the chestnut under tail-coverts of the waxwings, but they were not Cedar Waxwings. Of that we are sure. They flew before we had time to note every distinguishing mark." Mrs. Richards is well known by Mr. Forbush as a reliable observer.

West Stockbridge, on testimony of Miss Lottie Kniffin, who states that on February 1 she saw eight or ten Bohemian Waxwings, "white on wings very distinct." Mr. Forbush regards Miss Kniffin as "a very careful and modest observer" who "seems to know birds very well indeed."

These are the records for Massachusetts in 1919, so far as they have come to our knowledge. They constitute a striking contrast to the very few records of all previous years. The species has been so rare in Massachusetts that I had not before seen one, and fellow members of the Nuttall Ornithological Club of Cambridge, who have had life-long experience in field observation, testify that they have never seen one in the State in the wild.

In Howe and Allen's 'Birds of Massachusetts,' published in 1901, nine records are given, namely: a pair near Boston in the autumn of 1832, seen by Audubon's sons (Audubon); a large flock, Boston, of twenty to thirty birds in mid-winter about 1844 (Baird, Brewer and Ridgway); one shot at Williamstown prior to 1858, and now preserved in the Williams College Museum (Chadbourne); eleven specimens captured at Bolton by S. Jillson in January, 1864 (Allen); one seen by Mr. William Brewster in the Cambridge Region [Watertown] in October, 1869 (Allen); several taken near Worcester prior to 1870 and recorded as in the possession of Dr. Henry Bryant (Maynard); a female taken at Lynn on February 18, 1877, by Mr. N. Vickary (Brewster); it is stated, "This is doubtless the specimen labelled 'Lynn' in the collection of the Museum of Comparative Zoology, Cambridge"; [this specimen has recently been transferred to the collection of the Boston Society of Natural History]; one (?) taken during the winter of 1882-83 at Taunton (Copeland, *teste* Bent, *MS.*); and two seen by Mr. C. S. Phillips at Taunton on December 26, 1885 (Phillips).

Mr. Brewster, in his 'Birds of the Cambridge Region' [1906], has expunged from his records the alleged occurrence in October, 1869, the report of which, he states, was not well based, and he does not include the species in his authentic list. The elimination of this record from the nine leaves but eight records remaining, covering the period 1832 to 1885, more than fifty years. Mr. Brewster, however, places himself on record as regarding the earliest two of these eight records as far from satisfactory on account of their indefiniteness. And I find in his editor's footnote to the species in Minot's 'Land-Birds and Game-Birds of New England,' second edition, published in 1895, this statement: "A very rare and irregular winter visitor from the north. The most interesting instances of its occurrence are those given by Mr. Allen, of eleven specimens shot by Mr. Jillson at Bolton, Mass., in January, 1864, and of a single female taken by Mr. N. Vickary at Lynn, Mass., February 18, 1877. I can find no records of its occurrence anywhere in New England within the past fifteen years." The last two Massachusetts records cited above seem not to have been accepted by or else then unknown to the editor. It may be considered, then, that there have not been more than

six published records of the species within the State, which may be accepted as definite, up to the year 1901, and I have been unable to learn of any subsequent record of its occurrence up to the present time, until these occurrences of 1919 which have been recorded in this paper.

Bohemian Waxwings have appeared in other parts of New England, in this season of 1919. Mr. Forbush has received and transmitted to me the following records for Maine:

Mr. W. H. Waterman, Auburn, saw twenty-three Bohemian Waxwings on January 6. He got within fifteen feet of them. And on February 13 Mr. Waterman saw seven Bohemians on a sumac.

Mrs. Herbert Lombard, Gorham, reports seven Bohemian Waxwings on January 25, and a mixed flock of Cedarbirds and Bohemians, not more than five of the latter, on February 8.

Miss Bertha Brown, of Bangor, reports that a member of the Bangor Bird Club, a lady who is a careful observer, saw five Bohemian Waxwings feeding on sumac bushes under her window which looks out on an old garden, February 16, 17 and 21.

Miss Brown, in a letter to me under date of June 18, furnishes one other and a very late record, namely, that on May 29 of this year at Northport, Maine, on Penobscot Bay, where with her sister she has a summer cottage, they observed in an old apple orchard that sloped down to the shore of the bay, a small flock of waxwings, numbering six or seven birds; that one of these was on a low branch very near them, not more than three or four feet away, which from its size and white patches on its wings, they identified as a Bohemian Waxwing. Miss Brown further states that, being intent on reaching a bird at some distance whose calls they were hearing, they unhappily did not stop to examine the other waxwings of the flock, to determine whether there were other Bohemians, but of the identification of the one bird so closely viewed she is sure; that she returned to the vicinity repeatedly, but did not again see that bird; that two days later, and again four days later, she saw small flocks of Cedar Waxwings, three and five respectively, in the same orchard. So Miss Brown concludes: "Whether my one Bohemian Waxwing was associated with a flock of Cedar Waxwings or whether the whole flock that

I saw on May 29 were Bohemian, six or seven birds, I do not know." It may be stated that Miss Brown's records are not called in question by her fellow Maine ornithologists.

Professor William Patten, of the Department of Biology, Dartmouth College, writes me concerning an observation of Bohemian Waxwing by him at Hanover, New Hampshire, the record of which had been sent to Mr. Forbush by Mr. Franklin McDuffie, a student in the college: "Mr. McDuffie was correct in stating that I had reported seeing two Bohemian Waxwings in Hanover on the date reported by him [January 16, 1919]. The circumstances were as follows: I saw the two birds on the top of a larch tree about fifty yards from the window of my lecture room just before the exercise, so that I could not leave the building. I felt confident they were Bohemians, as I know them well from experience with them in Dakota, but I could not distinguish the color, as they were against a very light sky. There was no doubt about the size and the crest. I called in one of my colleagues with younger eyes, and he agreed with me in regard to the crest. Before we could get the glasses the birds flew away. I was not looking for these birds. I did not know until afterward that they had been reported elsewhere in New England at about that time. I have no doubt in my own mind about their identity, but, as you see, the observation lacks something of absolute certainty in regard to wing coloring and other details. About four or five years ago, in the late fall, I saw four Bohemian Waxwings in my front yard and had the pleasure of watching them for a half hour or so within a few yards, when I could see them with perfect distinctness."

Reports from St. Johnsbury, Woodstock, Burlington, Rutland, and Bennington, Vermont, reveal no records by observers in those sections of the State in the season of 1919. Dr. L. H. Ross, of Bennington, writes me under date of April 27, 1919: "No Bohemian Waxwings have been identified in this vicinity this winter, although I have had several observers on the lookout. I have seen flocks of the Cedar Waxwing several times, but could not detect any Bohemian among them. However, I am somewhat hampered in my observations because my field glasses are still on a U. S. submarine."

Correspondence with Mrs. Alice Hall Walter and Mr. Harry S. Hathaway, of Providence, Rhode Island, results in their declarations that they know of no authentic records for this State either in 1919 or in any previous year. Howe's and Sturtevant's 'Birds of Rhode Island' [1899], with subsequent Supplement, does not include the species.

Mr. John H. Sage, of Portland, Connecticut, writes me: "I wish I could give you later Connecticut records than those already published. I have nothing authentic, although two or three people feel quite sure that they have seen the species in our State since 1913." In 'Birds of Connecticut,' published that year by Mr. Sage and co-authors, three records are given, namely: "February 11, 1875, New Haven, one seen (?) (Smith) [Merriam, Birds of Connecticut]; Merriam [*ibid.*] further records that Dr. Wood, of East Windsor Hill, shot one by accident while shooting into a flock of Cedarbirds (specimen now in Atheneum collection, Hartford); fall, 1899, Torrington, one shot from a flock of Cedarbirds (in possession of Hochstein)." Mr. Sage states, in regard to the date of capture of the Atheneum specimen, "The Dr. Wood specimen has been known to me for more than forty years, and I have often talked with the Doctor about it, but he never could give the exact date of capture. It is a beautiful specimen and is still in fine condition."

To extend the inquiry further as to records of Bohemian Waxwing in New England in past years, published works on Maine, New Hampshire and Vermont, birds have been consulted and representative observers and students now active in these States have been communicated with.

O. W. Knight, in his 'Birds of Maine' [1908], states: "It has been years since there has been any definite report of the occurrence of this species in Maine." He further states, however, for Kennebec County, "given in Hamlin's List, 1865"; for Penobscot County, "occasional specimens have been taken in winter, two or three at the outside, but none have been reported for years"; for Washington County, "rare, some winters occurs in large flocks (Boardman)." Knight, writing to Mr. Forbush under date of December 22, 1909, subsequent to the publication of his 'Birds of Maine,' states: "I have the very best evidence

possible that the Bohemian Waxwings were here last winter. You will find the bulk of our knowledge regarding their occurrence here in the 'Journal of the Maine Ornithological Society' for the current year. So it is needless for me to rewrite it. Additionally, I may say that I secured several photographs of the birds while feeding, and Mr. Winch secured two specimens, a fine adult male and a female, which are now in the University of Maine Museum."

The testimony which Mr. Knight refers to in the winter of 1908-09 is this:

Clarence H. Clark, Lubec. Bohemian Waxwings made their appearance December 6, 1908; remained to January 3. Reappeared February 6, 1909, weather raw and rainy. They "keep up an incessant metallic trill." Number stated as twenty. [March 1909, Journal.]

Ora W. Knight, Bangor. March 9, 1909, Dr. W. H. Simmons, of Bangor, saw "a good-sized flock feeding daily on the fruit of a mountain ash beside a window of his home. The birds had been coming for some time before he paid any especial attention to them." On March 11, Messrs. Knight and Minch visited the locality, "found the flock feeding on rotten crabapples in an orchard, sometimes eating the pulp itself, at other times picking the apple to pieces and eating the seeds. Viewed them within fifteen feet." Mr. Knight states: "It is well on to twenty years ago, when the writer was a high school boy just beginning his scientific career, that the Bohemian Waxwing last visited this locality." [June, 1909, Journal.]

Miss Bertha L. Brown, Bangor, states: "The flock of Bohemian Waxwings, which has been seen about the streets of Bangor since early in February, [the number given in letter of Miss Abbot is fifty], had not left us March 30, 1909. I had not seen them until that date, although I had made many efforts to do so. I discovered a good-sized flock among some apple trees. For a good half hour I watched the birds at close quarters." [June, 1909, Journal.]

And this flight of Bohemian Waxwings was also observed at Grand Manan, New Brunswick, by Allan L. Moses, who testifies: "December 22 [1908] I saw one of the rarest birds that come to

the island, the Bohemian Waxwing. Three specimens have been seen here this winter, and I have two of them in my collection. This is the second record of this bird being taken in the island. The first was taken by my father, John K. Moses. I don't know the exact date, but it was about fifteen years ago." [March, 1909, Journal.]

Miss Harriet Abbot, of Fryeburg, on March 6, 1909, observed a Bohemian Waxwing at Bryant Pond. Her letter is so interesting that I quote it entire. Miss Abbot writes me: "On this date it was a rare opportunity to spend the entire day in the company of the Bohemian Waxwing. He came to his usual place, apple tree, near the house in the village of Bryant Pond, Oxford County. At the time the usual number of birds, tree sparrows, hairy and downy woodpeckers, juncos, redpolls, chickadees, and blue jays were feeding on the piazza, trees, and suet nailed on posts. The smaller birds paid no attention to the Waxwing, and they would all feed at once on the floor of piazza. The jays surrounded him on the apple tree, but he did not stir from his limb till the jays, after much noise and disturbance, left the tree. Mrs. Chase, who had the rare visitor from the middle of February until the second week of April, told me the things I observed on the one day were the same as occurred during all the stay. The Waxwing came to piazza *every* fifteen minutes from 8 A. M. to 5 P. M., eating chiefly crumbs of various kinds, sometimes working on the peanuts and chicken food (a kind of coarse mixed grain), but always returning to the crumbs. Mrs. Chase could go near the bird when he was feeding. The song was a soft, sweet trill, not similar to the Cedar Waxwing. Shortly after the date of March 6, 1909, a friend of mine observed a flock of fifty Bohemian Waxwings in Bangor. The Oxford County date was the first record of the bird's appearance in this part of Maine." Referring to the 1919 migration in response to my inquiries, Miss Abbott further states, under date of April 5, 1919: "We have not had the bird in our part of Oxford County [Fryeburg], neither has it been reported from adjoining counties."

Mr. Edmund P. Brown, of Belfast, Maine, very kindly assisted me in procuring such other Maine records from reliable observers as were obtainable. Mr. Basil Newell, of City Point, informed

Mr. Brown that about March 1, 1909, he saw three Bohemian Waxwings in apple trees near the State House in Augusta and that identification was absolute. Miss Bertha Brown, of Bangor, communicated to Mr. Brown the following record: "The only other record that I have of them [Bohemian Waxwing] was January 8, 1916, when several reliable members of our Bird Club, my sister among them, saw two Bohemian Waxwings in a tree on one of Bangor's residence streets. They watched them for some time and made very sure of the identification. Then, also, I was so unfortunate as not to be on the scene. Indeed, the only time I ever saw the bird in life was in the winter of 1909, when a large flock was about Bangor for over two months, February and March. Then I had several opportunities to observe them well and carefully."

Mr. Arthur H. Norton, curator of the Portland Society of Natural History, writes me that he has but one record, that of a bird seen by him at Westbrook, Maine, April 3, 1914.

Other representative ornithologists of Maine have been communicated with, who have reported that they have had no records of Bohemian Waxwing in their life experience.

Dr. Glover M. Allen, in his 'List of the Birds of New Hampshire,' published in 1903, designates the Bohemian Waxwing as "an extremely rare winter visitant," and states: "There appears at present to be no valid published record for the occurrence of this species in the State, but Dr. W. H. Fox informs me that, in the early part of 1880, O. H. Phillips, a taxidermist, took specimens near Nashua"; and that "Mr. W. E. Cram writes me he has observed it at Hampton Falls on February 17 and 21, 1897."

Mr. Charles F. Scott, of the New Hampshire College, Durham, furnishes two records, kindly transmitted to me by Prof. C. F. Jackson, of the Department of Zoology. The records are: "May 10, 1909, three Bohemian Waxwings seen on the Newmarket road between Newmarket and Durham; these were in the town of Durham"; and "June 2, 1913, one seen on the Newmarket road at about the same spot where those of 1909 were seen." Prof. Jackson regards Mr. Scott as "a thoroughly reliable observer" who "can be depended on for correct classification."

Rev. Manley B. Townsend, of Nashua, secretary of the Audubon Society of New Hampshire, and Mr. Lewis Dexter, of Manchester, have faithfully sought information concerning any occurrences of Bohemian Waxwing in the season of 1919, or in previous years, in the State, but unavailingly. No records have been obtained. The late Mr. Fred B. Spaulding's records at Lancaster have been examined by Mr. Fred H. Kennard, in whose possession they now are, and no record of *B. garrula* was found. Mr. Scott's records of 1909 and 1913 at Durham, and Prof. Patten's records of January 16, 1919, and one in 1914 or 1915, at Hanover, are therefore the only records within our knowledge for New Hampshire, additional to those published by Dr. Allen.

In 'A Preliminary List of the Birds Found in Vermont,' by Dr. George W. Perkins assisted by Clifton D. Howe, M. S. [1901], under the caption *Ampelis garrulus*, Bohemian Waxwing, the statement is made: "Not usually seen; but sometimes, especially in early spring or late fall, flocks appear for a few days."

Several interesting Vermont records since the publication of this 'Preliminary List' have been communicated to me. Dr. Loretius H. Ross, of Bennington, gives a series of records as follows: "1904, a flock numbering twelve to fifteen remained about Bennington village from March 3 to April 6. This flock was in the trees about the streets and was seen by many observers many times. The birds were not at all timid, and I observed them as close as twenty feet; 1908, on March 24, Mrs. Ross and I observed a flock numbering at least thirty. We saw them in an apple tree apparently eating the frozen fruit. Whether all of this flock were Bohemians I am not sure, but the larger number were. This same flock (I suppose) was seen on April 7 by Charles Hitchcock and identified as Bohemians (Hitchcock is a very reliable observer); 1911, March 27, Bohemian Waxwings ten, with Evening Grosbeaks five, in one flock, were studied by six observers for at least one hour. The birds were in low bushes (barberry) eating the berries; 1915, a flock of Waxwings numbering about fifty, composed of both the Bohemian and Cedar, remained during almost the month of April in a yard where there is a large tangle of barberry bushes. These birds were observed many times low down in the bushes and at close quarters; 1917, a flock of twelve

was observed on February 28." In a later communication under date of April 27, 1919, Dr. Ross states: "No Bohemian Waxwings have been identified in this vicinity this winter, although I have had several observers on the lookout. I have seen flocks of the Cedar Waxwing several times, but could not detect any Bohemians among them."

Miss Inez Addie Howe, botanist and instructor at the Fairbanks Museum of Natural Sciences, St. Johnsbury, writes: "In regard to Bohemian Waxwings I will say that on May 30, 1915, I saw a flock of seven in a cemetery at East St. Johnsbury. The next day, May 31, an observer at Lyndon, a town nine miles north of here, reported a flock of seven, presumably the same individuals." And in a subsequent letter Miss Howe states: "Of my own identification of Bohemian Waxwings on May 30, 1915, I am absolutely sure, and I gave full credence to Miss Walmarth's report on the day following, as she had the same number of individuals that I saw on the previous day. My record of May 30, 1915, was accepted by Prof. Wells W. Cooke, then of the U. S. Biological Survey, and it is on their files in Washington. I shall be glad to have you use my date in your paper and shall be willing to answer any questions or criticisms that it may occasion. I am sufficiently familiar with both species of Waxwings in our collections here, so that I feel sure of either wherever or whenever they may appear." In a letter of still later date, May 8, 1919, Miss Howe writes, "The one date of May 30, 1915, is my only one for Bohemian Waxwings in the twenty-five years that I have carefully observed the birds in this section."

I am also informed by Miss Howe that Mr. W. E. Balch, taxidermist of the Fairbanks Museum, and formerly of Lunenburg, testifies that he saw a flock of seven Bohemian Waxwings in an apple orchard in Lunenburg in February a few years ago. Mr. Balch's lamented illness throughout the winter and spring and recent decease prevent ascertaining what the year was.

Mr. George L. Kirk, of Rutland, writes: "Although I have been engaged in bird observations here for twenty years, I cannot positively say that I have seen a Bohemian Waxwing in Vermont. Some half dozen years ago, while on Mount Killington in mid-February with L. H. Ross, of this city, we saw a small group of

waxwings in the forest at about 3000 feet altitude. I should hardly expect Cedarbirds at such a place at that season, the weather being below zero and the snow deep, but unfortunately we had no glass and were unable to shoot one of the birds."

Mr. Charles F. Scott, of Durham, through Prof. C. F. Jackson, of the Zoology Department of the New Hampshire College, furnishes a record of a flock of about eighty Bohemian Waxwings seen on Killington Mountain below the summit, elevation about thirty-two hundred feet, on September 8, 1913. This seemed so extraordinary a record for its earliness that I wrote Mr. Scott to learn more particularly concerning this occurrence. Mr. Scott's interesting letter in reply would seem to leave no doubt as to the correctness of his identification. He writes: "It is true, as you have stated, that that species should not be found in our latitude in September. However, the bird is quite a wanderer and is often seen where least expected. In respect to the data I have in regard to the Killington Mountain record I would say that there could be no possible question of the identification, as I was able to get very close to the birds and observe all the marks of identification, including all those which you mention. I was very much surprised to find the species there at that time. I am, however, familiar with the bird in the north where also I have records, and from the experience I have had it would be impossible for me to confuse it with the Cedar Waxwing. * * * I observe not only all the identification marks, but also all habits, notes, and make especial note of the flight. * * * I certainly should not regard size alone as being enough to always distinguish the Bohemian from the Cedar Waxwing. You will also find a difference in flight and note. On the Killington Mountain trip the notes of several of the birds were heard. I had been told before by natives of the Green Mountains of the occurrence of the Bohemian Waxwing in the Green Mountains at that time of the year. It has also been reported in early October from the Mt. Mansfield-Camel's Hump region in the towns of Stowe and Duxburg. However, I cannot vouch for that. The best place to observe the habits of the Bohemian Waxwing is in Northern Quebec, north of Lake St. John. Another good region is in Northern Ontario along the line of the Canadian Government railways. In these two regions quite large flocks are seen in the Fall."

Mrs. Elizabeth B. Davenport, in an article on 'Birds of Windham and Bennington Counties' in 'Bulletin No. 2' of the Vermont Bird Club, July, 1907, includes Bohemian Waxwing, with the statement: "Reported from Bennington County. I identified one flock in Brattleboro, April, 1901." And in the joint 'Bulletins,' 4 and 5, of the Vermont Botanical and Bird Clubs, 1919, page 29, there is a record of a flock of Bohemian Waxwings numbering one hundred or more at "Sky Farm," Hartland, on October 30, 1917, observed by Miss Nancy Darling and her sister, Mrs. A. B. Morgan. Moreover, Miss Darling states that some years previously a flock of half a dozen or so visited the farm.

These Vermont records indicate that the Bohemian Waxwing reaches Vermont from time to time to a greater extent than it does New Hampshire, Maine, and Massachusetts, entering the State from the northwest on its long southeastward migration and sometimes scarcely penetrating New England further. The absence of Rhode Island records and the few records of Connecticut further indicate the southern bounds of the migration of the species into New England.

The records of 1919 and of recent years throughout northern and central New England, which have been presented, suggest that the Bohemian Waxwing, like the Evening Grosbeak, may have become a less unusual visitant than in former years, when our eminent ornithologists were active in the field, and very rarely, if at all in their life-long experience, was a specimen seen or taken by them. The range of date of occurrence extends, upon what seems to be reliable testimony, from surprisingly early dates, namely: September 8, Killington Mountain, Vermont, and October 30, Hartland, Vermont, to surprisingly late dates, namely: April 27, Malden, Mass.; May 29, Northport, Maine; May 30, St. Johnsbury, Vermont; and May 10 and June 2, Durham, New Hampshire; while the more usual season of occurrence is January to March inclusive, sometimes extending into April.

To summarize the records subsequent to 1900, given in this paper, the numbers in parentheses representing the respective number of individuals observed, and unless otherwise designated the time of occurrence being within the period of January to April inclusive, we have: *Grand Manan, N. B.* (3), Dec. 22, 1908.

Maine, Lubec (20), Dec. 6, 1908–Feb., 1909; Bangor (50), 1909; Augusta (3), 1909; Bryant Pond (1), 1909; Westbrook (1), 1914; Bangor (2), 1916; (5), 1919; Northport (1), May 20, 1919; Auburn (23, 7), 1919; Gorham (7, 5), 1919. *New Hampshire*, Durham (3), May 10, 1909; (1), June 2, 1913; Hanover (4), 1914 or 1915; (2), 1919. *Vermont*, Brattleboro (flock), 1901; Bennington (12–15), 1904; (nearly 30), 1908; (10), 1911; (some in a mixed flock of 50), 1915; (12), 1917; Hartland (5), late fall, 1908; (100), Oct. 30–31, 1917; Mount Killington (80), Sept. 8, 1913; (small flock), Feb., 1914 (?); Lunenburg (7), a few years ago; St. Johnsbury (7), May 30, 1915; no records for 1919. *Massachusetts*, all in 1919, Boston, Chestnut Hill district (1); Roslindale district (5); Newton Highlands (1); Malden (1); Essex (1); Greenfield (2); South Deerfield (2); West Stockbridge (8–10). *Rhode Island*, none. *Connecticut*, none.

The more notable incursions have been, therefore, in 1909, beginning in December, 1908, when reports from four localities in Maine and one from Grand Manan, N. B., include 77 individuals; and from one locality in New Hampshire, three individuals; and a second incursion in 1919, when reports from four localities in Maine include 36 individuals, from one locality in New Hampshire, two individuals, and from eight localities in Massachusetts, 21 individuals. In neither of these farther incursions into New England, strange to say, does a Vermont record appear. Yet in that State there are twelve records in nine or ten other years from six different localities, aggregating 300 individuals, more or less; while in these other years Maine furnishes but one record each in 1914 and 1916, New Hampshire but one record each in 1913 and 1914 (or 1915 ?), and Massachusetts, none at all. Vermont in the size of flocks observed far exceeds Maine, New Hampshire, and Massachusetts.

Bohemian Waxwings again appeared in New England in the late winter of 1920. Mr. E. P. Brown, of Belfast, Maine, reports that two male birds were seen by Mrs. Brown on January 26, with twenty Pine Grosbeaks, in a yard adjoining theirs. A neighbor reported having seen four or five Bohemians on the day preceding. February 1, eight individuals were seen by Mrs. Brown; three or four were in the full plumage of the male. This flock

continued to be observed from time to time up to February 29. On one occasion a pair was observed "billing," as do the Cedar Waxwings. Mr. Brown further states: "We noted that while Pine Grosbeaks or Evening Grosbeaks were usually present with them, they did not intermingle, the Bohemians keeping in a quite compact flock even when perching and feeding. Their whole diet while with us seemed to be the pulp, perhaps sometimes the seeds, of frozen apples. They seemed to show a preference for crabapples, and I am certain they commonly ate the pulp and showed no impatience to get at the seeds. They did not take alarm early, but had the habit, common with Cedarbirds, of simultaneous flight from no apparent cause."

Miss Bertha L. Brown, of Bangor, Maine, under date of March 3, 1920, writes: "A small flock of five or six Bohemian Waxwings are here in Bangor now; first seen on February 23, when they came to crabapple trees in a friend's yard. * * * I am sure there were five of them, and I think six. They did not mingle with the Pine and Evening Grosbeaks that were numerous in other parts of the tree, but kept aloof by themselves near the top of the tree. There, on March 1, they stayed for hours. The birds were displaying all their interesting and ingratiating mannerisms, frequently billing or caressing each other."

The Bohemian Waxwing again reached Massachusetts in the winter of 1919-20. One local record is at hand. Mrs. Edmund Bridge informed me that two or more Bohemians were present in West Medford from February 28 to March 3, with a flock of about forty Cedar Waxwings. Twelve Evening Grosbeaks, of which six were full plumaged males, and nine Pine Grosbeaks were near companions, a similar association of species as observed in Maine.