BICKNELL'S THRUSH (TURDUS ALICIÆ BICK-NELLI) IN NEW ENGLAND.

BY WILLIAM BREWSTER.

Upon reading Mr. Bicknell's article in the July number of this Bulletin (pp. 152-159) it occurred to me that his new Thrush must breed on our New England mountains as well as among the Catskills. This conviction was strengthened, shortly afterwards, by a letter shown me by Mr. Purdie, in which the writer, Mr. Bradford Torrey of Boston, asked if Turdus aliciæ was known to summer among the White Mountains, he having heard a Thrush there which he felt sure was neither the Wilson's, the Olive-backed, nor the Hermit. Acting upon the double hint I took an early opportunity to look for the interesting bird, with the following result.

On the afternoon of July 19, 1882, I started up the Mt. Washington carriage-road from the Glen House, in company with Mr. Walter Deane and Mr. James J. Greenough of Cambridge. At first our choice of a time proved unfortunate, for a succession of heavy showers prevented us from exploring the dripping thickets by the way, and forced us to push on as rapidly as possible, so that we reached the summit, shortly after dark, without having shot a bird of any kind. Thrushes were heard at various points, however, and the peculiar notes of a few met with near the Halfway House led us to hope that our quest would not prove in vain.

The following was one of those rare mornings that mountain climbers long for but seldom get. The sky was cloudless, and as the sun rose above the horizon its rays gilded the snowy banks of fog that marked the courses of distant rivers, and, touching the eastern sides of the surrounding mountains, bathed every rugged slope and beetling precipice in a flood of light, the brighter from its contrast with the gloom that still enveloped their western sides and shrouded the mysterious depths of dark ravines far below. The keen, almost frosty morning air rustled among the scant vegetation, and an occasional stronger puff heralded the coming blasts which, with other retainers of Winter's train, are

never quite banished from these elevated regions, even during mid-summer. But time was precious, and barely pausing to admire the grandeur of the scenery that surrounded us we began the descent, my companions botanizing, while I watched closely for birds.

On the very summit—or at least less than a hundred feet below it—Snowbirds (Junco hiemalis) were twittering among the rocks, but no other species were observed until near the end of the third mile, when the clear notes of a White-throated Sparrow rose from a thicket of dwarf birches (Betula glandulosa) and blueberry bushes (Vaccinium cæspitosum) by the roadside. A few hundred yards further down we heard a Nashville Warbler singing in a sheltered hollow among some black spruces (Abies nigra), the tallest of which were barely four feet high. His presence in such a spot was a forcible illustration of the law that Nature fills all her waste places, for surely he might have found a more congenial home among his kindred in the forests below.

Down to this point we had seen no trace of Thrushes of any kind, and indeed the evergreens were nowhere numerous or high enough to afford them suitable shelter. But about a third of a mile above the Half-way House, or nearly four miles, by the carriage-road, from the summit, and at an elevation of (approximately) 4000 feet, we came to a tract of firs (Abies balsamifera) and spruces (A. nigra) that seemed to promise better results. This thicket covered three or four acres of a comparatively level portion of the mountain, and extended down the face of an almost sheer precipice to the bed of West Branch in the "Gulf of Mexico" below. Over the level area the trees attained a height of about ten feet. They averaged perhaps four inches in diameter at their bases and their tops were matted and spreading. The ground beneath was moderately open, entirely free from undergrowth, and deeply carpeted with a yellowish-olive moss over which were thickly sprinkled the clover-like leaves of the wood sorrel (Oxalis acetosella) and, more sparingly, graceful star flowers (Trientalis americana) and beautiful Clintonias (Clintonia borealis), the latter still bearing their greenish-yellow blossoms. In the immediate vicinity, but not actually under the shade of the trees, we found Pyrus americana, Betula papyracea (four or five feet high), Amelanchier canadensis oligocarpa (three or four feet in height), Ledum latifolium, Cornus canadensis, Vaccinium vitis-idæa, Salix cutleri, Arenaria grænlandica, Solidago virga-aurea alpina (with flowers on the point of opening), and Smilacina bifolia.

Around the outskirts of this Alpine wood the trees were shrubby and often so densely matted that it was impossible to penetrate them, but in the interior one could walk with comparatively little difficulty. As I picked my way between the stems, carefully avoiding the many dangerous holes and crevices concealed beneath the mossy floor, I was forcibly reminded of similar forests on the bleak shores of Labrador. The few sunbeams that penetrated among the branches had a pale, wintry cast, and at intervals the rising wind sighed drearily in the trees. Altogether there was about the place an air of rugged—almost savage wildness, in fit keeping with the grandeur of the surrounding scenery.

In this shaggy forest Thrushes were singing and calling on every side, and in the course of an hour or two I managed to secure three specimens, one of which was a typical Olive-back, while the other two, to my great delight, proved to be the birds of which we were in search; viz., representatives of the small southern race of T. aliciæ lately named by Mr. Ridgway in honor of its discoverer, Mr. Bicknell, and until now known only from Riverdale on the Hudson and the Catskill Mountains of New York.

Although the specimens just mentioned were the only ones actually taken, we saw and heard many others, both at the point already described, and further down the mountain, in the vicinity of the Half-way House. Nor were opportunities wanting for comparing the voice and habits of the new bird with those of its near relative *T. swainsoni*, both being frequently found together in the same thicket, although the Bicknell's Thrushes were the more numerous throughout the region of stunted spruces, while the Olive-backs predominated in the heavy timber below.

The song of Bicknell's Thrush is exceedingly like that of Swainson's; indeed, to my ear, the usual strain, though rather feebler, was nearly indistinguishable; but occasionally—perhaps on the average once in the course of five or six repetitions—a peculiar, and apparently perfectly characteristic bar was interpolated. This was a flute-like per-pseùeo-pseùeo given quickly and in a tone which, at a little distance, closely resem-

bled that of the Solitary Vireo's well-known voice. The respective call-notes of the two birds, however, were radically different. That of *T. swainsoni* is a musical *pip* or *peenk* as liquid in tone as the sound of dropping water. The call of *bicknelli*, on the contrary, was harsh and far from pleasing. Usually it was a single loud, penetrating *queep*, often abbreviated to *quee*, and occasionally varied to *queeah* with a falling inflection. At a distance this note sounded not unlike the cry of a Nighthawk. Near at hand it had a peculiarly startling effect in the silence of these solitary woods, and I noticed that it left a disagreeable, jarring sensation on the ear. Once or twice it recalled the *pheu* of the Tawny Thrush, but ordinarily it was

sharper and higher pitched.

In a general way the habits and actions of these Thrushes may be said to be identical, but bicknelli is a much shyer, noisier and more restless bird than its cousin the Olive-back. Indeed I found it next to impossible to creep within shot of one, for long before I was near enough the wary bird would take flight, to resume its singing or calling at some distant and perhaps inaccessible point on the steep mountain side below. The only successful method of proceeding proved to be that of lying in wait near the spot whence one had been driven, for in a short time it was almost sure to return, prompted, apparently, by curiosity, which I found I could stimulate by making a shrill chirping or squeaking. On such occasions the bird would approach by short, cautious flights, keeping itself so well concealed that it would often come within a few yards and retire again without once exposing itself to view. Indeed the two specimens taken were only secured by snap shots directed almost at random towards some opening in the branches where the flash of a wing betrayed its owner's movements.

Judging from the necessarily imperfect observations made during my hurried reconnoisance, the Bicknell's Thrushes are most abundant, on Mt. Washington, in the belt of stunted firs and spruces which border the upper edge of the heavy timber, at an elevation of about 3800 feet. From this point their numbers rapidly diminished as we descended, and the last one positively identified was met with at an elevation of (approximately) 3000 feet. Their range upwards is probably co-extensive with that of their favorite spruce thickets, for, as already stated, they were

found at the highest point where shelter of this kind occurred. There is, of course, no reason for supposing that they are confined to the eastern side of Mt. Washington. On the contrary it is highly probable that they are generally distributed over the upper portions of that mountain as well as on many of the higher ones of the surrounding group. Indeed they may be confidently looked for almost anywhere in New England at an elevation of over 3500 feet.

Through Mr. Bicknell's kindness I am now able to make a direct comparison between the specimens obtained on Mt. Washington and two of the Catskills examples, one of which (No. 653) figures prominently in Mr. Ridgway's original description of the new race.

My measurements of these four specimens are as follows:

653 (E. P. Bicknell) & ad., Slide Mt., New York, June 15, 1881. Wing, 3.65; tail, 2.96; culmen from feathers, .50; from base, .68; depth of bill at nostrils, .16.

717 (E. P. B.) & ad., Slide Mt., June 27, 1882. Wing, 3.60; tail, 2.73; culmen from feathers, .54; from base, .67; depth of bill at nostrils, .18. 7389 (W. B.) & ad., Mt. Washington, July 20, 1882. Wing, 3.74; tail, 2.93; culmen from feathers, .49; from base, .64; depth of bill at nostril, .15.

7390 (W. B.) 3 ad., same locality and date. Wing, 3.60; tail, 2.79; culmen from feathers, .52; from base, .67; depth of bill at base, .16.

The Mt. Washington birds are in worn breeding plumage. They are plain grayish-olive above and along the flanks, with a slight tinge of reddish on the tail, and more or less fulvous over the jugulum and throat. Their general coloring is identical with that of average spring specimens of T. aliciæ and very much grayer than in Mr. Bicknell's No. 653, which, however, is probably an exceptional specimen, for his No. 717, obtained in the same locality June 27, 1882, is but a trifle browner than the New Hampshire skins. The latter come well within the limits of size given for bicknelli, and their bills are fully as slender and depressed as in Mr. Bicknell's most extreme specimen (No. 653). This peculiar shape of the bill, already remarked upon by Mr. Ridgway, is a striking point of difference between them and all of a large series of Gray-cheeked Thrushes which I have collected in New England during the migrations. But although seemingly confined to the smaller race, it is an inconstant character, for Mr. Bicknell's No. 717 has a bill as stout as in many of my largest aliciae. Taking size as the sole test (and it is the only one positively claimed by Mr. Ridgway) I find that of Massachusetts specimens captured during the migrations, my series includes five that fall within the extremes assigned to *bicknelli*, to which, necessarily, they, with the Mt. Washington examples, must now be referred.

While it is perhaps unsafe to base any very positive conclusions on the material at present available, there seems every reason to believe that this small race will prove a reasonably constant one, at least as represented along the southern borders of its breeding range. However this may be, the long-disputed question of the character of the relationship borne by *T. aliciæ* to *T. swainsoni*, is, as Mr. Bicknell has pointed out, at length definitely settled. Those who from the first have maintained their specific distinctness have surely good reason to exult in this final victory.

Our satisfaction at the acquisition of this Thrush, new specifically to the summer fauna of New England, and, as a variety, previously unrecognized from within its limits, can scarcely fail to be tempered with chagrin that so interesting a stranger has all this time existed among us undetected. Yet when we pause to reflect, there is the consolation-barren though it be - that our higher mountains have never been adequately explored by ornithologists; and who can say that they do not hold further surprises? With their Alpine flora and cold climate they offer conditions favorable to the requirements of many northern-breeding birds, and it is by no means improbable that several such, at present known only as migrants through New England territory, may eventually be found to pass the summer in their remote fast-At all events the field is well worth further investinesses. gation.

NOTES ON AN HERMAPHRODITE BIRD.

BY J. AMORY JEFFRIES.

A short time ago I received the body of a Green-tailed Towhee (*Pipilo chlorurus*), which forms the subject of the following description. The bird was shot by Mr. Brewster, at Colorado