

mental work, as a foster-parent of the Cowbird. The nest in question was found in the southern part of Ross Co., Ohio, was photographed and the entire set collected.—W. F. HENNINGER, *Waverly, Ohio*.

The White-throated Warbler at Ann Arbor, Michigan.—I took a specimen of the rare White-throated or Brewster's Warbler (*Helminthophila leucobronchialis*) near Ann Arbor, Mich., May 18, 1902. It is an adult male, rather larger than either *H. pinus* or *H. chrysoptera*, and much different from either in coloration. We have no other record for this county, and only two for *H. pinus*, but *H. chrysoptera* nests here quite commonly.—NORMAN A. WOOD, *Ann Arbor, Mich.*

The Coloration and Relationships of Brewster's Warbler.—Brewster's Warbler (*Helminthophila leucobronchialis*) is invariably described as having a white breast more or less strongly washed with yellow; this tinge being reduced to the minimum, but still always present, in so-called typical examples.

I hope to prove that in pure plumage this bird has the under parts *absolutely* white, and that the slightest trace of yellow in the breast-feathers brands a specimen as intermediate between *leucobronchialis* and *pinus*. It is well known that these extremes are connected by a perfect chain of intermediates, and that the frequency of occurrence of these intermediates is, if we count them all as *leucobronchialis*, in inverse ratio to the purity of their coloring. (A fact, by the way, which points strongly to the belief that *leucobronchialis* is a mere variation of *pinus*.)

Whitish-breasted and more or less golden-winged examples of *pinus* are, comparatively speaking, not rare, but the *leucobronchialis* end of the gradation is meagerly represented by specimens—so meagerly, in fact, that ornithologists have apparently failed to get a clear idea of what it really is. Now since this gradation is from a bright-yellow-breasted, green-backed, *toward a pure-white-breasted, gray-backed bird*, the assumption that it certainly stops *just* short of attainment of the latter extreme would be absurd, even if there were no specimens to contradict it. There is, however, at least one such specimen. A Brewster's Warbler which I shot at Beltsville, Maryland, in May several years ago, and which is now in the Smithsonian collection, has all the white of the under surface exactly as pure and ashy, and the gray of the back as clear and as sharply defined against the yellow crown, as the best examples of *H. chrysoptera*. Of course a discrimination between pure white and very slightly tinged white can only be made by experts, and it was as experts that my father and I, both of us artists, examined this specimen with a view to testing this very point. When the bird was fresh, there was no slightest trace of yellow in its breast, on or below the surface of the feathers; but this purity of coloring has been marred by a most unfortunate accident. The breast was torn in skinning, and grease has exuded on to the feathers,

making a patch of buff-colored stain that would be mistaken for the prescribed yellow wash by any but a very close observer. This, however, might perhaps be removed with turpentine.

When it has been proved that Brewster's Warbler does, as was to be expected, achieve a perfectly pure coloration, it is obvious that the description of true Brewster's Warbler should be taken from a bird thus purely colored. For, granted that it is sometimes entirely white-breasted, it would be exactly as rational to take as a type a strongly yellow-tinged specimen, or one from any point in the gradation toward *pinus*, as one with a faint, concealed yellow wash.

The extreme form is of course the best representative of this obscure race; and the form best representing the race is, except in the narrow technical significance of the word, most *typical*.

There is another point which does not seem to have received due consideration in discussion about Brewster's Warbler. It is the fact that, though the bird is most generally believed to be a hybrid between *pinus* and *chrysoptera*, and the gradation between the former and pure *leucobronchialis* is cited as corroborative of this theory, there are absolutely no intergrades between pure *leucobronchialis* and *chrysoptera*. Until such specimens are found, the evidence in favor of this view is at best extremely incomplete. On the other hand, there are several points that tell against it, and one of the most important of these is the existence of Lawrence's Warbler. This bird is very evidently a hybrid between the two common species already mentioned, and is itself extremely rare, as such a hybrid would naturally be.

Typical specimens are nearer in general aspect to *pinus* than to *chrysoptera*, though they have the black head-markings of the latter; and the remarkable parti-colored bird shown at a recent meeting of the A. O. U. is intermediate between *lawrencei* and *chrysoptera*; while none of these shows any affinity with any plumage of *leucobronchialis*, which has always a light throat and a *narrow* black eye-line.

It seems scarcely possible that two species of Warbler should produce together two perfectly distinct types of hybrid. If it depended on which species furnished the male parent, one type of offspring could only be much commoner than the other if one combination of parents were much commoner or more prolific, which in this case seems very unlikely.

All this leads one to believe that Brewster's Warbler is either a distinct species whose normal habitat has yet to be discovered, but whose hybrids with the Blue-winged Yellow have frequently been found, or that it is an independent color-phase of the latter species.

This last explanation seems to me by far the most plausible of all.—
GERALD H. THAYER, *Monadnock, N. H.*

Rare Birds for Eastern Long Island, New York.—Two Summer Tanagers (*Piranga erythromelas*) were seen, and one taken on the 9th of April, 1902. The specimen taken was somewhat emaciated, but the