## Acknowledgments

This is a Bird Populations Institute Report, supported by contributions from BPI members interested in seeing banding data put to good use. We ask every reader who found this report interesting to join and offer their support so that we can continue this work.

## Literature Cited

Fretwell, Stephen, W. Pursley, G. Icenogle, R. Tueling. 1973. Why are birds' wings as long as they are? EBBA News 36(4)

## DENTIFICATION OF WINTERING ORIOLES IN THE NORTHEAST By John P. Hubbard

Reprinted from "DELMARVA ORNITHOLOGIST"

Small numbers of orioles (<u>Icterus</u> app.) occur annually in the northestern United States from late autumn through early spring. The vast majority of these birds are Baltimore Orioles (<u>I. galbula</u>), but at times occasional occurrences of Bullock's Oriole (<u>I. bullockii</u>) or Orchard Oriole (<u>I. spurius</u>) might be expected.

Adult males of all three species are readily identifiable, as their plumages are the same as summer birds except for having some brown or gray feather tips. Orchard Orioles can be recognized in other plumages by their greenish and yellow coloration and small size (in the hand the wing chord is 85 mm or less). On the other hand, certain plumages of Baltimore and Bullock's Orioles may be very similar, particularly among immature birds — which are the most frequently recorded as wintering birds. The purpose of this paper is to discuss identification of these difficult orioles, based on a study of specimens and the literature.

At the outset it should be stated that the field identification of confusing orioles of the Baltimore/Bullock's complex is not an easy matter, nor one that invites a casual approach. The two species are closely related and interbreed in the Great Plains, and similarities in plumage are a reflection of their close relationship. In the Northeast the chances of finding a true Bullock's Oriole are far, far less than that of finding a Baltimore Oriole, although this does not mean that the possibility is nonexistent. A healthy attitude might be to regard all orioles as Baltimore until proven otherwise, with Bullock's being identified only when distinctive

plumages and the best of circumstances are involved. As a word of caution, to my knowledge none of the immature orioles collected in winter in the Northeast has turned out to be an unequivocal Bullock's Oriole.

Besides similarities in plumages, a contributing source of confusion and error in the identification of Baltimore and Bullock's Orioles is their treatment in field guides. Observers should realize that field guides can cover only a limited amount of the individual variation that exists within species, and often various extremes are not covered. In addition, at times the wrong characters are emphasized as means of identification, and there may even be errors in this regard.

For example, female and nonadult male Bullock's Orioles are often said to be characterized by their pale abdomen (= "belly"), the color of the area being given as whitish to pale gray. The fact is that some (many?) immature Baltimores also have the abdomen whitish or otherwise pale in color, while some Bullock's have the area buff to pale orange. While the character is of some value in corroborating an identification, the color of the abdomen is obviously not a firm basis for calling a bird a Bullock's Oriole. One field guide errs in showing the whitish of the abdomen extending back to include the undertail coverts in Bullock's Oriole, but actually that area is buff to yellow or pale orange.

The characters that can be used to identify confusing orioles of the two species can be traced back to Robert Ridgway's classical treatment of the birds, and in most field guides these characters are shown even if not emphasized. The important characters involve the coloration of the head and the upper parts, particularly the back. The characters of the head reflect the colors and patterns on adult males of the two species of orioles.

In adult male Baltimore Orioles, the head is black throughout, whereas in Bullock's the black is relieved by orange, especially on the forehead, in the superciliary area (= "eyeline") and in the auricular (= "cheek") region. In female and nonadult male Baltimore Orioles the auriculars and often the forehead and superciliary area tend to be gray to brown, although at times there is a minor suffusion of yellowish or orangish in them. In Bullock's Orioles the three areas are usually yellowish to orangish and sometimes the entire crown is suffused with that coloration. A general impression is that in Bullock's Orioles the auricular region, in particular, is

more similar in coloration to the breast (but may be slightly darker), whereas in Baltimore Orioles the auricular region is more similar to the nape or back in color. In addition, there may also be dark gray or blackish markings on the head in some older females and immature males of both species, and again these reflect the patterns of adult males. In Baltimore Orioles the markings tend to extend from the throat onto the auriculars, whereas in Bullock's Oriole they are confined to the throat (as a "bib") and the auriculars are immaculate.

Another character by which the two orioles may be separated is the color of the back and other upper parts. Baltimore Orioles are darker above than Bullock's Orioles, with the color ranging variously from greenish through darker shades of gray and brown (or even blackish). Bullock's Orioles tend to be buff to pale shades of gray or brown above, but discoloration by soot may darken them so that they become similar to Baltimores in this regard. Contrary to field guides, some Baltimore Orioles show little if any streaking on the upper parts, which is the case with most Bullock's Orioles. Orioles that are heavily marked above, however, are almost certainly Baltimores, so that dorsal streaking can be corollary character in certain cases. A character related to that of upper part coloration is the color of the wings, which tend to be dark brown or blackish in Baltimores and paler brown in Bullock's Orioles. Again this is a corollary character, as some overlap exists in it.

In general, the underpart coloration of the two species shows more overlap than that of the head or the upper parts. As already mentioned, the color of the abdomen is not a valid basis for identifying either of these orioles to species, although Bullock's Oriole tends to have the area whitish to light gray and Baltimore Oriole, buff to orangish. Bullock's Oriole also tends to have the yellow-to-orangish coloration of the breast paler and more restricted posteriorly and the undertail coverts are usually paler than those of Baltimore Orioles. With the overlap and subjectiveness of these characters, however, one would not be justified in using them as the primary basis for identification.

To summarize, difficult-to-distinguish birds of the Baltimore/Bullock's Oriole complex are best separated by the coloration of certain parts of the head and upper parts. The auriculars and often the forehead and superciliary tend to be closer in color to that of the upper parts in Baltimore Orioles and closer to that of the breast in Bullock's Orioles. Blackish markings, when present, extend from the throat to the auriculars in Baltimore Orioles and

are confined to the throat ("bib") in Bullock's. The upper parts are greenish to gray or brown (or blackish) in the Baltimore Oriole and buff to pale gray or pale brown in Bullock's Oriole.

Other characters show overlap but may be used as corollary clues in the identification of these orioles. These include the dorsal streaking and the color of the wings, breast, abdomen and undertail coverts. Separation of orioles in difficult plumages is not a simple task, and in the Northeast no bird should be identified as Bullock's Oriole unless it is ultra-typical in its characters and observed under ideal circumstances. Even so, sight records of immature Bullock's Orioles in that area will be subject to question, at least until collecting of specimens properly elucidates the species' status there.

I wish to acknowledge the use of the collections of the (U.S.) National Museum of Natural History, the American Museum of Natural History and the Delaware Museum of Natural History. I also want to thank Dr. Allan R. Phillips and Mr. John Bull for their contributions to this paper.

