

Horned Grebe vs. Eared Grebe: Head shape and occurrence timing

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Introduction

Though separation of Horned and Eared Grebes is well-covered in the typical field guides, many birders still have difficulty with this pair. Obviously, typical alternate-plumaged individuals should pose little difficulty, but individuals molting between plumages cause fits, as do juveniles and immatures. I present here a different tack to take in identifying small black-and-white grebes, with particular emphasis on basic-plumaged individuals. I treat briefly some pitfalls of birds molting between basic and alternate (and vice-versa) and also discuss the timing of occurrence of these species in Colorado and how it is relevant to their identification.

Occurrence

Eared Grebe breeds widely, but very locally, at suitable water bodies in Colorado, particularly in the mountain parks (Nelson 1998, Giroir and Leukering 1999). The species is mostly absent from the state in winter, though they are now annual in numbers at that season at Pueblo Reservoir, Pueblo County, with a high count of 690 on the Christmas Bird Count (CBC) there. They are of sporadic occurrence in tiny numbers elsewhere on the Eastern Plains in winter, particularly on John Martin Reservoir in Bent County. Spring migrants begin arriving in early to mid-March at low elevations, but the bulk of migrants do not appear until late April and into May, particularly as most Colorado breeding areas are not available to the species until May at the earliest. Fall migration is protracted, with increasing numbers detected starting in early September, a pronounced peak in late October and early November, and a quick tapering off just in

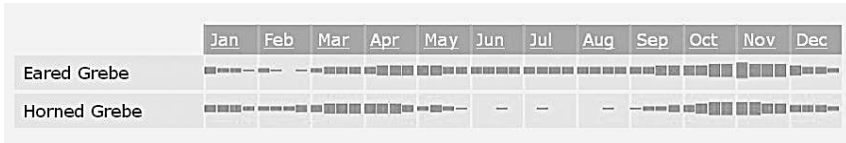


Fig. 1. Seasonal abundance of Eared and Horned Grebes in Colorado. Graph generated by eBird (<http://ebird.org>) using data submitted through 18 September 2009.

time for all to be gone by the time CBC season rolls around (except as mentioned above).

Horned Grebe does not breed in the state and is most common here as a spring and fall migrant. The occurrence of the species in winter is similar to that of Eared Grebe, though usually with smaller numbers (including a high of only 37 on the Pueblo Reservoir CBC) and a slightly higher rate of occurrence away from Pueblo Reservoir. Spring arrival is around the beginning of March, with a sharp peak in early April and numbers quickly dropping to early May. Thus, though the spring presence of the two species is quite similar, overall, Horned Grebe numbers have peaked and are declining sharply by the time Eared Grebe numbers are climbing to their peak. In fall, Horned Grebes do not arrive in any numbers until early October, with numbers peaking late that month and declining sharply, such that early-winter numbers are reached by mid-November.

The seasonal patterns of occurrence of these species are illustrated in the eBird abundance charts in Figure 1.

Molt

The earliest spring migrants of both species arrive still in basic plumage. Birds present later in the season are obviously conducting their pre-alternate molts. Whether individuals stop here to conduct that molt has not been determined, but study of grebes found during the course of spring shows a strong increasing trend in amount of alternate plumage on birds present and a decreasing trend in percentage of birds still in basic plumage. In concert with Horned Grebes' earlier peak of migration, they also seem to obtain alternate plumage sooner than do Eared Grebes. Thus, a grebe in March or early April that has any significant percentage of alternate plumage is probably a Horned Grebe, and this difference probably holds true for some time into April.

The situation in fall is quite different. Though Pyle (2008) states that adult Horned Grebes conduct their pre-basic molt away from the breeding grounds, I do not recall ever seeing an alternate-plum-

aged individual in Colorado in fall (October - November) and other experienced observers report that they have seen very few, if any (Bill Schmoker, Christopher L. Wood, pers. comm.). Juvenile Horned Grebes initiate their pre-formative molt on the breeding grounds and complete it at stopover sites (Pyle 2008). The pre-formative molt is the molt out of juvenal plumage, which is well-illustrated in Sibley (2000). We do not see Horned Grebes in Colorado with any significant amounts of juvenal plumage, so this molt must be completed (or nearly so) before birds arrive in the state.

Thus, the vast majority of individual Horned Grebes found in Colorado in fall are in their black-and-white plumages: definitive basic plumage in adults and formative plumage in young-of-the-year. On the other hand, because Eared Grebes breed in the state, most adults, at least in early fall, are still partly or entirely in alternate plumage. Additionally, most of the adults' pre-basic molt is conducted at stopover sites, so even individuals arriving in Colorado in fall from elsewhere probably arrive in alternate plumage, or mostly so. Juvenile Eared Grebes are typically noted in Colorado on or near breeding lakes, but can be found virtually anywhere in the state. Individuals in this brownish plumage can, possibly, be more readily mistaken for Pied-billed Grebes than for Horned Grebes.

The Problem of Immatures

Once these grebes' pre-formative molt is completed, they all obtain somewhat similar black-and-white plumages. This formative plumage is the plumage in which young-of-the-year spend their first winter, and it is where the most problems lie in separating these two species.

This plumage is duskier in both species than are the corresponding definitive basic (adult winter) plumages. Normally, adult Horned Grebes in winter are cleaner and whiter than adult winter Eared Grebes, which are duskier overall. Immature Eared Grebes are even duskier than adults and lack much white in the plumage at all, so they look quite unlike any Horned Grebes. On the other hand, immature Horned Grebes can more closely resemble adult Eared Grebes in plumage.

Several aspects of shape and coloration can help provide solutions to the problem of immatures.

Shape: Given all the confusion sown by molt timing, immature plumages, and odd individuals, head shape provides more and better clues for identifying these two species than any other part of the body. The pictures on the back cover of this issue illustrate the features that I discuss here about head shape, with Horned Grebes presented in

each of the two upper photos and Eared Grebes in the two lower photos. These shape differences are useful in all plumages.

Head-on view (left two photos): Comparing width of head to width of neck, Horned Grebe shows a relatively wider head than does Eared Grebe. Though the actual difference in millimeters can be quite small, it results in a wide-headed appearance in Horned Grebe, while in Eared Grebe the head appears barely wider than the neck. Eared Grebe usually exhibits a thinner, more “elegant” neck versus the shorter, thicker neck of Horned Grebe. In fact, if it weren’t for the Horned Grebe’s thick neck, the difference between neck width and head width on the species would be obvious, rather than subtle.

From the front, Horned Grebe also shows a flat crown, while Eared Grebe exhibits a peak in the center of the crown (side to side).

Profile view (right two photos): The head of Horned Grebe slopes gradually up from the forehead to the rear of the crown, with the highest point at the very rear. The peak of the crown on Eared Grebes is usually near the eyes (sometimes in front, sometimes behind). Regardless, the rear edge of the crown is lower than the head’s peak in this species. However, some juvenile Eared Grebes have flatter crowns that more closely resemble those of Horned Grebes.

In the profile view, perusal of the placement of the eyes can be very helpful also. The eyes of Horned Grebe are placed higher than the middle of the head—that is, closer to the crown than they are to the underside of the head or “chin”—whereas on Eared Grebe the eyes are lower than the middle of the head.

Horned Grebes also tend to show a flatter profile to the back, with Eared Grebe tending toward a more rounded and higher back profile that creates a more acute angle between the neck and back in the species.

Coloration: Horned Grebe has a pale tip to the bill, visible at close range, which Eared Grebe mostly lacks. The color of the fore-necks of the two species are generally different, with Horned sporting white feathers and Eared dusky feathers (but see above, under “The problem of immatures”). Horned Grebe usually exhibits a supraloral (or pre-ocular) patch of pale color. This patch is often white and sharply-defined but is nearly always present to some degree; it is somewhat discernible on the profile picture on the back cover. Eared Grebe usually lacks this patch. If the patch is present in the species, it is never sharply-defined nor obviously white.

The border of black and white on the face of Horned Grebe is typically, though not always, a straight line through the bottom of the eye. On Eared Grebe, this line passes under the eye, and then usually curves further downward, at least a little. Not only is this difference

in shape notable, but it also means that the eyes on Eared Grebe are enclosed by black, while the eyes of Horned Grebe are bordered on the bottom edge by white.

Finally, the single feature that I use first at long range is often the stark and sharp contrast between the black and the white on the face of Horned Grebe. Though most juveniles/immatures and some adults may have some dusky on the face, any small black-and-white grebe lacking such is a Horned Grebe.

LITERATURE CITED

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Upper left: Horned Grebe, Bolinas Lagoon, Marin County, CA, 20 November 2007. Upper right: Horned Grebe, Westport, Grays Harbor County, WA, 7 February 2006. Lower left and lower right (same individual): Eared Grebe, Southeast Farallon Island, San Francisco County, CA, 28 November 2007.