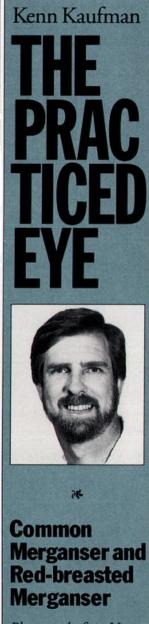
Ducks and fish both live around water, of course, but as a rule there are not many interactions between them. That rule is broken by the mergansers. These ducks—known to many sportsmen as "sawbills" for the serrated edges of their mandibles, good for grasping slippery prey—are our only fish-eating members of the waterfowl family, Anatidae. Indeed, they seem to be the only ones adapted for the rapid underwater pursuit that is necessary to overtake agile small fishes. (Other ducks, even those that dive in fast-moving water, go for slowmoving food.) Watching a flight of mergansers arrowing through the sky, slender and straight and fast, we can imagine their speed underwater.

Four kinds of mergansers are found in North America. The two smaller ones-Hooded Merganser (Lophodytes cucullatus) and Smew (Mergellus albellus)---are distinctive in all plumages. Not so for the two larger species, Common Merganser (Mergus merganser) and Red-breasted Merganser (Mergus serrator). The diagnostic differences shown for most of the year by males of the two species are obscured in the late-summer eclipse plumage, and females of the two are confusingly similar at all seasons. Thus, a view of a lone female-plumaged "merg" may leave the observer with more merg questions than merg answers.

To begin with, our task is easier if we are dealing only with adult females in alternate plumage (or "breeding plumage"), which they wear at

least from mid-fall to late spring, the seasons when most of us are most likely to see mergansers. In this plumage, the Common is definitely the more colorful and more distinctly marked of the two. Its head is rich reddish brown, and this color extends down onto the neck, where a sharp line of demarcation sets it off abruptly from the gray lower neck and body. The female Red-breasted has a duller rusty-brown head, and this color fades gradually on the neck, without a sharp line of contrast. Its body plumage tends to be more brownish-gray (not blue-gray like that of the Common), further



Photographs from VIREO

reducing the contrast in color.

Throat pattern is distinctly different on these winter birds. Both have white throats, but on Redbreasted the white fades gradually into the brown face, with no line of contrast evident. On Common Merganser, the white throat is sharply bordered by chestnut above (and below, with a band of this color crossing the front of the neck). The result is a distinct white *patch* on the face of the Common, just behind the base of the lower mandible, which can be seen from a remarkable distance if one is looking for it.

The pattern around the eye is worth noticing. On adult female Common Mergansers this area is uniformly colored or slightly darkened, so that the eye simply looks like a darker spot on a red-

dish-brown face. The female Redbreasted shows a more interesting pattern. It has a distinct dark line through the eye, with the part of the face below this line often looking paler than the area above it; it has a broken pale eye-ring; and it often has a noticeable pale stripe just below the dark lores. However, note that *juvenile* Common Mergansers show more face pattern than their mothers do, approaching the pattern of the Red-breasted.

Habitat is often a clue. Redbreasted Mergansers take to salt water far more often than Commons do, and the drab off-season mer-



An adult male Red-breasted Merganser, with crimson eye and spiky crest. Photograph / D. Weirick / VIREO (w05/1/003)



Portrait of an adult male Common Merganser. Photograph / B. Gadsby / VIREO (g09/5/034)

VIREO (Visual Resources for Ornithology), at the Academy of Natural Sciences of Philadelphia, is the world's first and foremost scientific collection of bird photographs. Established in 1979, the collection now holds well over 100,000 images, representing about half of the world's bird species. For more background, see the feature on VIREO by J. P. Myers *et al.* in *American Birds* Volume 38, Number 3, May-June 1984.



Like a hurled spear, straight and swift, is this male Red-breasted Merganser in flight. A merganser in the air is easily separated from other ducks by its characteristic profile, as if it had been stretched out along a straight line from its long thin bill to its relatively long tail. Photograph / Geoff LeBaron / VIREO [105/8/021]



An adult female Red-breasted Merganser. The dull rusty-brown of the face fades gradually into the white throat and gray sides of the neck. Photograph / Arthur Morris / VIREO (m17/13/041)



Adult female Red-breasted Merganser. The bird has a distinct dark line through the eye and a broken pale eyering. Its steep forehead is exaggerated here because the head feathers are raised. Photograph / Arthur Morris / VIREO (m17/13/042)



Adult female Common Merganser. The area around the eye is uniformly dark, the white throat stands out in strong contrast, and there is a sharp separation between reddish-brown and gray on the neck. Compare the forehead-to-bill profile of this bird with the Red-breasted Mergansers above. Photograph / Arthur Morris / VIREO (m17/5/061)

gansers seen lurking around coastal jetties are likely to be of this species. Big concentrations of Common Mergansers are usually on inland fresh waters; friends and I once counted 13,000 on a reservoir in Kansas. But Red-breasteds turn up regularly inland, especially in migration, and flocks of Commons may appear on protected coastal bays. In areas where both are uncommon migrants, I have seen mixed flocks and even mixed pairs. Clearly, for a problematic lone bird, habitat will be no more than a hint to its identity.

Special problems are caused by birds in "eclipse" plumage. This is more correctly called *basic* plumage, directly analogous to the "winter" plumages of many birds, except that most ducks are in this plumage in late summer! A merganser in full eclipse is a sorry sight, drab and dingy. Because it molts all the flight feathers at once it is flightless for a time, good reason for the bird to look inconspicuous. *None* of the standard field marks for female mergansers will work on eclipse-plumaged birds: they all look about like the dullest Red-breasteds. For these birds, a good look at the bill is the key.

With a close view, the bill of Common Merganser is slightly heavier at the base than that of the Red-breasted, and this is emphasized by the larger unfeathered area at the base of the upper mandible. On Red-breasted, the feathering extends farther forward from the lores onto the base of the upper mandible, so that less surface area shows at the base of the bill. Forehead shape can also help. On Common Merganser, the flat forehead seems to continue straight into the outline of the top of the bill. Red-breasted Merganser has a steeper forehead, at a distinct angle from the bill's upper profile. Finally, with a really close view, the position of the nostril is different: closer to the base of the bill on Red-breasted, but almost out to the halfway mark on Common. Study the photographs here to see if you can pick out this distinction. Believe it or not, this actually can be seen in the field at times, helping to confirm the identification on a close-up but tricky individual.



Adult female Common Merganser, preening. The feathers of the upperparts are not just gray, but bluegray, contrasting strongly with the reddish head. Photograph / Arthur Morris / VIREO (m17/5/057)



This Red-breasted Merganser appears to be an adult male mostly in eclipse plumage, but with some of the alternate plumage color on the head retained or already regained. The eye is brighter red, and the upperparts are darker, than they would generally be on an adult female or young bird. But for naming it to species, *none* of the plumage characters that work for adult females would be effective on a bird in eclipse; our identification of this bird is based mainly on details of bill shape. Photograph / Geoff LeBaron / VIREO (I05/8/024)



A flight of Common Mergansers overhead. Slightly heavier-bodied than the Red-breasted Merganser, they are still more slender than most ducks. On the one female in this group, even at this distance, the well-defined white patch on the throat is obvious. Photograph / S. J. Lang / VIREO (L11/3/059)