A method for separating juvenal and first-winter Ring-billed Gulls (Larus delawarensis) and Common Gulls (Larus canus)

A new and closer study solves a problem of identification

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The BREEDING RANGE of the Common or Mew Gull, Larus canus, is continuous from Iceland and northwestern Europe (L. c. canus) to eastern Siberia (L c. kamtschatschensis) and extends into northwestern North America (L. c. brachyrhynchus). In central and eastern North America L. canus is replaced by the similar Ring-billed Gull, L. delawarensis, with some sympatry in northwest Canada.

The nominate race, L. c. canus, which has been recorded in eastern North America, differs in several respects from L c. brachyrhynchus and L. c. kamtschatschensis. Juvenals and first-winter L c. brachyrhynchus and L. c. kamtschatschensis have dusky tails with an obscure subterminal band, and spotted upper and under tail coverts. The appearance of the tails is similar to the tails of first-year Herring Gulls, L. argentatus smithonianus, rather than to the clearly banded tails of L. c. canus and L. delawarensis. The Eurasian race of the Common Gull, L. c. canus, is generally a whiter bird than the northwestern American subspecies, L. c. brachyrhynchus, with a white, rather than a dusky tail, a dark, clean-cut subterminal band, and white upper and under tail coverts. The gray on the mantle of L. c. canus is a shade lighter than that of L. c. brachyrhynchus. These plumage differences bring L. c. canus closer to L. c. brachyrhynchus than L. delawarensis in appearance, and make field identification more difficult.

On the West Coast of North America where L. c. brachyrhynchus and L. delawarensis occur together, experienced

observers have little difficulty in distinguishing between the two species; overall size, bill size, color, tail pattern, and posture are different enough to permit identification. The situation on the East Coast is quite different. Most observers have had no opportunity to make direct comparisons between Ring-billed Gulls and the Eurasian Common Gull, L. c. canus, the subspecies which is most likely to occur. Although fully adult Common Gulls are usually identifiable because of the plain bill (in breeding condition) and the dark eye, first- and second-year birds are more difficult to distinguish. To complicate the situation, continued observation of Ring-billed Gulls produces sightings of some individuals which are very small in overall size and have small bills. Recently several of these smaller individuals in first-winter plumage have been reported informally and in field notes as "Mew Gulls" rather than as Ring-billed Gulls. Specimens of several small individuals which were examined at museums proved to be Ringbilled Gulls. Figure 1 (cover photograph) illustrates a Ring-billed Gull of this type photographed in November in southern New York State.

THE STANDARD FIELD GUIDES are not much help in distinguishing Common Gull from Ring-billed Gull. The European guides are primarily concerned with the separation of Common Gulls from Herring Gulls. A Field Guide to Western Birds (Peterson, 1941) and Birds of North America (Robbins et al., 1966) appropriately depict L. c. brachyrhynchus, not L. c. canus. The Audubon

Water Bird Guide (Pough, 1951, plate 23) includes a good painting of a juvenal Ring-billed Gull in flight, but does not include a similar picture of L. canus for comparison; the illustration of a standing bird is not very helpful. Pough's description of juvenal and second-year plumage seems to combine elements characteristic of L. c. brachyrhynchus (very dark and brownish) and L. c. canus (lack of tail band in second-year birds) The new and flawed Audubon Society Field Guide, Western Region, (Udvardy 1977, plate 68) contains a good photograph of a first-winter L. c. brachyrhynchus mislabeled as "second year," but no photograph of a Ring-billed Gull in similar plumage. Note the even tone and lack of contrast in the plumage of this bird and compare it to the Ring-billed Gull in our Figure 1.

The person who has contributed the most toward clarifying the problem of field identification and aging of Ringbilled and Common gulls is P. J. Grant, who writes from the British point of view — that of distinguishing a vagrant Ringbilled Gull in a group of Common Gulls in Britain (Grant, 1973, 1978, 1979). In describing the field marks which distinguish the two species, Grant notes, as do others, the larger overall size, longer, thicker bill, and longer legs of the Ringbilled Gull. He also discusses plumage, wing, and tail differences. Examination of museum skins and the observation of small Ring-billed Gulls in the field suggest that size differences are of little assistance in determining the identity of an individual bird. Grant's (1973) description of a first-winter Ring-billed

Gull as "wholly paler" than Common Gulls seems incorrect. In general the field marks most frequently cited in the literature do not seem positive enough to be useful in all cases, nor do they rule out smaller-than-usual Ring-billed Gulls from consideration as Common Gulls.

Dwight, (1925, p. 104) noting sex differences in gulls, offers some information concerning these small birds: "Females . . . show a wider range of variation in size than males especially in the bill . . . and again among them will be found surprising individual dips below average size . . . Still another peculiarity due to sex is the larger number of females backward in plumage and colors of the soft parts as compared with males. They begin their respective molts later and do not advance toward adult plumage quite as rapidly as males, . . . colors, too, are often duller and the pattern less developed."

Interestingly, those of us who have made this identification error are in good company. Audubon seems to have been the first, and the list includes Elliot Coues; the following passage is from Dwight's (op. cit.) classic monograph on gulls:

"The claim of Larus canus to a place in the North American fauna has long rested on a specimen taken in Labrador in 1860 by Elliot Coues and later sent to Howard Saunders of the British Museum who recorded it as "canus" (Proc. Zool. Soc., 1878, p. 178) and returned it to the U.S. National Museum where it has been ever since. Later writers, even Ridgway (1919), accepted the record as valid although it has been questioned. I recently examined this specimen (U.S. Mus., No. 18222, Henley Harbor, Labrador, August 1921) [an obvious error; the year was 1860] and can definitely state that the bird is not canus but delawarensis. It is in worn juvenal plumage . . . the tone of the brown feathers is deeper and there is much more brown than in canus, the head is heavily streaked, almost solid in color where canus is white with spotting or grayish streaking. The underparts are more spotted, streaked and barred than canus, even the flanks and under tail-coverts are partly barred while they are white or faintly spotted in canus. The wing-band of this specimen is the gray band of delawarensis, not the browner one of canus. Finally the tail has less white and is more freckled than canus which frequently lacks obvious freckling; the coverts too, both upper and under, are distinctly barred while those of *canus* are either faintly spotted or entirely white".

In this passage Dwight carefully delineated the plumage differences between juvenal L. c. canus and L. delawarensis. Perhaps the least-known or understood feature Dwight mentions is the difference between the shades of brown on individual feathers of the two species. This paper presents comparisons on this topic derived from the study of skins at the American Museum of Natural History by the authors; photographs are by Thomas H. Davis.

LL RACES OF Common Gull and ARing-billed Gull acquire first-winter plumage through a partial post-juvenal molt, usually occurring in August and September, although in some individuals the plumage changes seem delayed. Ring-billed Gulls have been seen in juvenal plumage in November. During this molt the back feathers are largely replaced by gray feathers, and body feathers are also replaced. However, juvenal plumage is retained on the tail and the wings, including the wing coverts, until the molt of the following August when second-winter plumage is assumed (Dwight, 1925, Grant, 1978).

Comparison of museum specimens of L. delawarensis with L. c. canus and L. c. brachyrhynchus shows that while the gray feathers in the mantle of L. canus are a shade darker than the gray feathers in the mantle of L. delawarensis, the brown centers of individual juvenal wing covert feathers, and the brown tertials

and primaries are actually darker in L. delawarensis than in L. canus. The darker interior areas of the wing covert feathers in L. delawarensis contrast with their light edges to produce a "brighter" or more contrasting look to the plumage. (Figures 2, 3, 4, 5). This contrasting effect is analogous to the difference between a Great Black-backed Gull and a Herring Gull in similar plumage.

In addition, the shape of the brown interior or central area on individual feathers is different on the two species. The typical Common Gull feather has convex edges to the brown area, while the Ring-billed Gull often shows concave or straight edges and "corners" on the brown area. (see Figure 2 and the closeup photos of coverts). Compared to standards contained in Smithe's color guide (1974, 1975), the shade of the interior area of a juvenal covert feather in the Ring-billed Gull is number 28, olive brown, while the Common Gull color is number 27. drab, a shade lighter. These differences in the interior areas of the juvenal covert feathers were consistent across 20+ specimens each of L. c. canus, L. c. brachyrhynchus, and L. delawarensis examined in the collection of the American Museum of Natural History. In interpreting the possibly misleading descriptive words "darker" or "browner" as used in the literature, it must be kept in mind that the more uniformly-toned Common Gull in firstwinter plumage actually has wing coverts, tertials and primaries which are a shade lighter than those of the Ring-billed Gull. In the specimens examined these



Figure 3. Close view of *L. delawarensis* wing coverts. Note darker shade of brown central areas with concave edges and more angularity.



Figure 2. Sketch showing shape difference between central brown areas on coverts of *L. c. canus* (top) and *L. delawarensis* (bottom).

differences seemed to persist as long as the juvenal coverts remain, although faded birds in May and June would undoubtedly present problems. However, in late spring the slightly darker gray mantle of L. c. canus ought to be more obvious and become a more prominent field mark. The gray mantle of L. c. brachyrhynchuswas noticeably darker than both L. delawarensis and L. c. canus.

THE DIFFERENCE IN the shape of the centers of the brown centers of the wing covert feathers should be helpful at close range and in photographs. The presence of centers with angular or concave edges rules out Common Gull as far as can be determined.

The most consistent determinant we found in the skins of first winter birds was the above-mentioned difference



Figure 5. L. delawarensis (top), L. c. canus (middle), L. c. brachyrhynchus (bottom). Note dif ference in shades of brown on wing coverts.

between the shades of brown in the center of the juvenal covert feathers, in the tertials, and in the primaries. Once we became aware of these characteristics we were able quickly and reliably to identify skins held up and viewed at some distance through binoculars, and to sort birds in the hand without hesitation. (Note the paired comparisons of L. c. canus and L. delawarensis in Figures 8, 9, 10).

Among other field marks, the tail characteristics are the most helpful, but



Figure 4. Close view of *L. c. canus* wing coverts. Note lighter shade of brown central areas and mainly convex edges.

are not always easy to discern in life where a standing bird does not con sistently display its tail, and the tail coverts and primaries often conceal the rectrices. L. c. brachyrhynchus has a much darker tail than L. c. canus or L delawarensis, with a subterminal band that tends to blend in with upper part of the rectrices. Tail coverts are heavily mottled above and below, and there is more color on the body than on L. c canus and L. delawarensis. (Figure 6) This smaller race seems more easily separable than L. c. canus from L. dela warensis.

L. c. canus generally has a pure white tail with a clear-cut dark subterminal band, and pure white upper and under tail coverts. A few birds show some spot ting on the upper tail coverts, but never as much as most L. delawarensis. An occasional L. c. canus shows a little shading on the outer rectrices. (Figure 7).

Ring-billed Gulls usually have mottled tails above the band, particularly toward the outer edges. The coverts are spotted and extend down over the rectrices (Figure 11).

In summary, instead of looking for a "darker" first year bird when searching among Ring-billed Gulls for a Common Gull, we should be looking for a more evenly-toned bird with less contrast between the centers of the brownish wing covert feathers and their edges. If the bird in question is of the West Coast race, L. c. brachyrhynchus, the generally



Figure 6. Three L. c. brachyrhynchus specimens. Note heavily marked tail coverts, uniformity of plumage.

Figure 7. Four L. c. canus specimens. Note white tails, lack of spots on tail coverts, and lighter tertials.



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Figure 8. L. delawarensis (top), L. c. canus (bottom). Note similarity of overall size and bill size, and difference in shades of brown in coverts and tertials.



Figure 9. Paired comparison; L. c. canus (top), L. delawarensis (bottom).



Figure 10. Paired comparison; L. delawarensis (top), L. c. canus (bottom).



Figure 11. Four L. delawarensis specimens. Note spotted tail coverts, mottled rectrices, darker tertials.

browner underparts and the darker mantle together with the dusky tail and the heavily marked tail coverts above and below, should make this smaller, more delicately-billed bird fairly easy to pick out.

If the bird in question is *L. c. canus* it should have a white tail above the subterminal band, usually have white upper and under tail coverts, and appear more evenly toned on the back and wings than similarly plumaged Ring-billed Gulls. Tertials and primaries should be a shade lighter than those of Ring-billed Gulls in similar plumage.

If the bird in question is an undersized Ring-billed Gull it should have darker tertials and primaries similar to those of other Ring-billed Gulls, juvenal covert feathers or brown feathers remaining in the mantle that contrast with their edges and are similar to those of other Ringbilled Gulls, and spotted upper and under tail coverts overlapping a tail mottled above the band, especially toward the edges. A bird with dark centers in the wing covert feathers, or dark spots in the body plumage contrasting with white feathers is almost certainly a Ring-billed Gull despite its size, the shape of its bill, length of its legs, or the color of the soft parts. We feel that the addition of these apparently reliable field marks will greatly strengthen an observer's ability to distinguish the two species, and help prevent the misidentification of small Ring-billed Gulls as Common Gulls.

Some comments are tentatively offered on distinguishing second-year birds: based on limited study, second-year individuals in the museum seemed more difficult to separate than first-year birds. The differences between mantle shades did not seem very distinctive, although in life this may be more obvious. Observations of Ring-billed Gulls on Long Island suggest that ten to twenty-five percent of second-year birds have all-white tails, rendering that characteristic useless. However, the presence of dark spots remaining in the tail is used as an indicator of Ring-billed Gull in Europe,

according to Grant, as L. c. canus rarely retains this feature in the second year, although L. c. brachyrhynchus does. Eye color is still dark in many second-year birds, and the previously mentioned ambiguity in overall size and bill size still pertains. Of interest is Grant's mention in his latest publication (Grant 1979) of the significance of "prominent white tertial crescents" on L. c. canus caused by wider white edges that contrast with the slightly darker mantle color. These crescents are not prominent in L. delawarensis. This sounds like a useful field mark since Ring-billed Gulls do not have this characteristic. The fact that second-year L. canus have ringed bills adds to the problem of identification.

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Table 1. Summa	y of principal	identification c	haracteristics
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L. canus canus L. canus brachyrhynchus L. delawarensis Covert feathers Low contrast Low contrast High contrast Tail band Clean cut Lacks contrast Upper edge diffused Tail above terminal band White Heavily mottled Mottled Tail coverts Pure white Heavily mottled Spotted Chest and belly Off white Off brown Off white with spots



Figure 12. A TEST: can you identify these first-year birds? L. c. canus, L. c. brachyrhynchus, and L. delawarensis are present. Answers below.

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canus, L. c. canus, L. delawarensis, L. c. canus, L. delawarensis.

KEY: Top, both L. c. brachyrhynchus. Bottom, left to right: L. c. brachyrhynchus, L. delawarensis, L. c.