

INTRODUCTION

OVERVIEW—BY PETE DUNNE

GULLS? No Waaaayyyyyyyyyyyyy!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Ask any bird-watcher to name the bird group that is most intimidating, and to a man, woman, and tour leader they often shout: “GULLS!”

So daunting is this family that one accomplished field trip leader of my acquaintance, a person who can identify any North American warbler in three notes or less, categorically asserts: “I don’t do gulls.”

Sadly, such unconditional dismissal renders birders incapable of becoming acquainted with one of the planet’s most fascinating bird groups. No other birds are so adept at foraging on land, in the air, and in aquatic environments. In addition to being panglobal in distribution, gulls are intelligent,

inquisitive, and socially complex, and these superior aerialists are able to acclimate themselves to a wide array of habitats, from Arctic cliffs to tundra ponds, inland waterways, city streets, South American deserts, lakes, landfills, and of course coastal beaches. Ironically, one habitat most gull species have not adapted to is deep, open marine environments, the place that puts the “sea” in “seagull.” Kittiwakes and Sabine’s Gulls are the only true “seagulls,” spending their nonbreeding months over deep ocean waters. In the balance, most gull species rarely stray beyond sight of land.

Distributed as breeders across the planet’s colder regions for the most part, gulls as a family largely surrender tropical regions to their close relatives the terns.

Ranging in size from the dove-sized Little Gull to the greater-than-Osprey-sized Great Black-backed Gull, these



INTRO 1 Gulls often roost together in small to large flocks on beachfronts and in other open spaces. This flock contains Herring and Great Black-backed Gulls of various ages. New Jersey, August

INTRO 2 Two birders consult their field guide while looking at a mixed flock of gulls and terns, including the Black Skimmer flying toward them to warn them not to come any farther. New Jersey, July



INTRO 3 A subadult 1st winter Ring-billed Gull (*right*) stands on a Florida beach next to a Royal Tern. These birds are roughly the same size and often roost together on beachfronts. Both are commonly found on southern beachfronts of all coasts and in some tropical regions of the Caribbean. Florida, March

carnivorous birds feast on a variety of food sources, including mostly aquatic fare on coastal beaches and insects and larvae for inland breeders. The hooked bills of the larger gull species are well suited for tearing flesh from large carcasses, or rending starfish, crabs, and other tidal-zone fare (literally) limb from limb from limb. Smaller gull species are equally adept at snapping insects out of the air or foraging for them on foot. Unlike terns and many aquatic seabird species, gulls are nimble afoot, their legs and webbed feet positioned for efficient biped locomotion as well as swimming.

In the air they excel at soaring, and many are fast and agile enough to rob other seabirds of their prey. Where skill fails, ingenuity reigns. Several gull species are known to carry

mollusks, urchins, and other armor-plated food aloft and drop them upon hard surfaces, forcefully decanting the gastronomic delights within. The Ivory Gull, a rare snow-colored Arctic species that specializes in attending polar bear kills, is reported to investigate anything red on the snow. The adaptive Ring-billed Gull, a common and widespread North American species, has in recent decades successfully exploited the culinary riches of America's fast-food culture, eschewing coastal beaches and tide-borne fare in favor of french fry-strewn parking lots farther inland. In short, if there is a meal to be had, there is almost certainly a gull suited to exploit it.

I was once interviewed by a reporter who was interested in the "gull problem," which she defined as the french fry and pizza



INTRO 4 Ring-billed Gulls are often found in parking lots near fast-food restaurants or in Dumpsters with food waste. They are quick to exploit a Good Samaritan who stops to give them a few morsels of food, like Kevin did with this small flock in southern New Jersey. Note the two larger gulls in this flock. What species do you think they are? Answers are in the appendix, p. 205. New Jersey, April

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pilfering predilections of Laughing Gulls, especially in coastal boardwalk locations. My response was to point out that the “problem,” as she defined the interaction, was not the gulls, but was instead the result of the poor food husbandry practices of humans. With gulls in the vicinity, you guard your lunch or lose it. Kleptoparasitism (one species taking food from another that has acquired it) is a practice right out of the gull basic playbook.

This truism was once forcefully brought home to me while I was standing in a parking area in Denali National Park, Alaska, with a freshly made ham sandwich in hand, unaware that the parking area was haunted by Mew Gulls. Raising binoculars to my eyes, I foolishly used my sandwich-bearing hand to steady the elevated instrument, thus triggering the kleptoparasitic instincts of a bird that had become habituated to the misguided food-offering habits of tourists. In July in Alaska, this inland-breeding gull had young to feed and I, through a lack of caution, had egg on my face.

Gulls typically breed and roost in large groups from hundreds to many thousands. Like egrets, gulls were once persecuted and killed for their feathers to fuel the fashion trade, with the result that some gull populations a century ago were only a fraction of the numbers we know today. In fact, Herring Gull was once extirpated as a breeding bird along the coast of Maine, where its keening cry is now iconic. Now protected and established as a breeder on small offshore islands, Herring Gulls thrive in Maine and elsewhere. Other gulls nest on Arctic cliffs, on shores of inland rivers and lakes, or in vegetation of freshwater and tidal wetlands. One species, Bonaparte’s Gull, even nests in trees on the edges of the vast boreal forests, where it uses twig platforms lined with moss to deposit its eggs.

INTRO 5 Gull numbers in Daytona Beach, Florida, are estimated at close to one million birds in winter, many of which are Laughing Gulls. Larger gulls typically roost together, but a few different species can be found in this large flock. Hint: Ring-billed Gull and Herring Gull. Daytona Beach, Florida, January

INTRO 6 Bonaparte’s Gulls are very comfortable perching in trees near their nest sites in boreal regions, where they survey the landscape. They often nest in these trees as well, using a nest of loose sticks to deposit their eggs. Churchill, Manitoba, June





INTRO 7 Herring Gull size and structure differences. Determining the sex of a gull is not possible in most gulls because of broad overlap in measurements between the larger males and smaller females. However, the very large bill, bulky body, and large head with a flat-topped crown on the immature bird (*right*) suggests a male Herring Gull. The 1st winter immature Herring Gull (*left*) has a tiny bill for this species, as well as a rounded crown and a slender, long-winged profile, which suggests a female. However, it is best to say “probable” because there can be extreme variation in body size, wing length, and bill size in the larger gulls. Sexing is best done with mated pairs of gulls, where even subtle differences in bill size, head shape, and body bulk are sometimes obvious because of the direct comparison. Florida, January (both birds)

Gulls are mostly monogamous and pair for life, and both members of the dyad care for the two to three young produced during a nesting cycle. If the young survive, adulthood is attained in two to five years, depending on the species. Once mature, gulls may lead long lives, resulting in a high proportion of adults in a population of a given species. While males and females have identical plumage, determining the sex of members of a breeding pair is sometimes possible, especially with larger, white-headed gulls. Males average larger than females and have slightly to distinctly bigger bills and larger heads with flatter crowns, differences more easily noted when birds are standing together, especially in mated pairs. These differences are often much harder to notice in the smaller gull species.

WHY THIS BOOK, NOW?

Since Roger Tory Peterson published the first field guide to birds in 1934, the identification process has been mostly plumage driven. With bird species whose plumage possibilities are limited to a manageable three to five options, this plumage-driven approach works fine. But gulls go through a series of plumages en route from their juvenile feather coating to adulthood, compounding the complexity of plumage-based identification. This paves the way for a more fundamental size- and structure-first approach, which is then augmented with plumage details to reach a more holistic ID conclusion.

This is a book that begged to be written, and for years I tried to get someone else to write it—a treatment of gulls

that presents them in the simplified, straightforward way in which we regard other bird groups, most notably raptors.

Ultimately, I came to understand that I was precisely the person to write this book, an epiphany prompted by two things: first, by my realization that I am better able to isolate and identify Lesser Black-backed Gulls at two hundred yards than at twenty feet; and second, by the complementary working relation I developed with author and photographer Kevin Karlson while working on a book treating North America’s birds of prey. Kevin, coauthor of *Birding by Impression*, is the image-driven complement to my wordsmithing and has spent many years perfecting a way to simply explain a more complete, holistic ID process.

Also supporting my standing to write this book is that, while I am an experienced birder, I harbor no deep fascination with gulls. I accord gulls the same level of interest I bestow on any other bird group. What’s more, my approach to identification hinges mostly on traits easily noted in the field, which are characteristics relating to size, shape, behavior, structural features, habitat, distribution, range, and direct comparative assessment. This approach has been honed by many years of hawk-watching, and it sidesteps, where feasible, the mostly plumage-centric approach embraced by gull mavens that differentiates species based largely on distinctions related to successional age classes or molt “cycles” (for example, 1st winter, 2nd winter, or 1st cycle, 2nd cycle, 3rd cycle). These determinations are for the most part feather deep.



INTRO 8 Herring Gull plumage variation by age. This photo array shows the variation in plumage in Herring Gulls from fresh juvenile plumage (*upper left*, New Jersey, late July) to full adult plumage (*lower left*, New Jersey, March). Immatures in the first two years are mostly brownish gray, with variable gray upper back feathers, while subadults and adults have gray upperparts and white underparts. Streaking on the head of the *lower middle* subadult is nonbreeding plumage (shown by adults and subadults), while the clean white head in the *lower left* photo is a breeding-plumaged adult. *Upper middle* (immature, 1st winter, Florida, November); *upper right* (immature, late 1st winter, New Jersey, May); *lower right* (immature/subadult, 2nd winter, New Jersey, April); *lower middle* (subadult, 3rd summer, New Jersey, July).

When I am regarding a Sharp-shinned Hawk or a Black-and-white Warbler, it never occurs to me to ask how old it is beyond perhaps immature or adult. Why must gulls be treated differently? If your answer is that differences relating to transitional molt cycles make such determinations possible, that is indeed commendable, but it still does not explain why

such involved determinations are desirable or necessary if your objective is simply to pin a name to the bird.

If another answer is that a working knowledge of plumage and molt patterns is essential to the discovery of rare vagrants, I point out that geography has pretty much already solved this problem for you, putting distance between North American



INTRO 9 Vega and Yellow-legged Gulls. These two rare vagrants to North America were both formerly part of the Herring Gull complex, but recent decisions by worldwide ornithological societies determined that Yellow-legged Gull is now a separate species, while Vega Gull is still a subspecies of Herring Gull that breeds infrequently in extreme northwestern Alaska but is rare anywhere else in North America. Vega Gull, adult, *left*, Kuparuk, Alaska, July; Yellow-legged Gull, adult, *right*, Germany, June

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birders and birds like Yellow-legged and Vega Herring Gulls. Geographic isolation is, after all, fundamental to speciation. Yellow-legged Gull (not to be confused with Yellow-footed Gull) is found in Europe, Asia, and North Africa. An entire ocean lies between North American birders and this large, white-headed gull. As for Vega Herring Gull, I have never dreamed of seeing one of these Siberian subspecies in the continental United States. And yes, some gull species do present a persistent pattern of vagrancy, but persistent is not the same as pervasive, and in every generation a few individuals are hardwired to take the path less followed. This is one of the key tenets of evolution.

I am by no means trying to diminish the difficulty inherent in gull identification—a challenge already complicated by the sheer number of variables. In North America, there are twenty-two regularly occurring gull species and a handful of regular to rare vagrants and remote breeders, many similarly sized and plumaged, with younger birds for the most part clad in shades of brown, black, and dirty white, while many adults share gray or black upperparts and white underparts with black highlights. Then, as noted, gulls go through a multiyear succession of plumages en route from their juvenile plumage to adulthood, displaying in these transitional years plumages that are often fundamentally similar to the corresponding plumages of closely related species in similar transitional age classes.

Further complicating gull identification is the protracted and asynchronized (nonconforming) feather replacement evidenced by individual birds of the same species, so that some

individuals in an age class advance rapidly through a molt (feather replacement) cycle and other individuals undergo a more delayed molt, making textbook examples of birds in any particular age class difficult. This variation challenges field guide authors and artists to depict representative birds and not include the different plumage conditions possible at that same age cycle. We try to show these variations in plumage in photo arrays that depict the possible plumages seen in a given year of a gull's life.

Small wonder that mere mortals, when confronted by some feathered brown miscreant loafing on a beach, shrug and walk away, or, as one celebrated North American field guide author and tour leader pronounced when apprised of this book's title and ambition: "Good luck."

Other experienced birders, after hearing the title of this book, commented that "*gulls cannot be simplified*". Our response: Perhaps, but at least the process of identification *can be simplified*, and that is what we hope to accomplish in this book.

And while it does take a measure of hubris and perhaps naïveté to try to bring a measure of practical sense to the challenge of gull identification, the most important element may indeed be humility. Not every gull encountered in the field is going to be identified, or at least identified correctly. Acceptance of this makes it easier to move forward and focus on broad commonality and consolidation as opposed to getting lost in feather-splitting differences related to plumage and molt.



INTRO 10 This messy, worn, brownish gull is one of the reasons that many birders are disinclined to identify many gulls, or even look at them. However, geographic location and other features, such as size, body and head shape, bill size and shape, and bare parts and eye color, may help solve this puzzle. This brown miscreant was photographed in July in New Jersey, when many gulls are undergoing a replacement (molting) of their older, worn feathers and acquiring new, fresh feathers for the winter months. This is a 1st summer Herring Gull, with a pulled-taffy front head shape; a large, straight bill with a bulge near the tip; a compact body with uniform brownish plumage and a whitish head; a pinkish-based bill and pink legs; and a dark eye typical of 1st year Herring Gulls. New Jersey, July

American Oystercatcher losing food to Ring-billed Gull. Florida, January



TRADITIONAL GULL ID PROBLEMS

**BY PETE DUNNE AND
KEVIN T. KARLSON**

Why, then, has gull identification been presented as such a feather-splitting challenge?

First, we humans seem obsessed by the need to find and classify differences, whether these have a bearing on species differentiation or not—that is, we like splitting hairs, or in this case, feathers. Fine and well; who doesn't enjoy a challenge? But gulls, because of their complex plumage array, simply overwhelm most observers.

Also exacerbating the challenge of gull identification is the avocational focus on finding birds that are outside their conventional range—that is, "rare birds." By placing added

value on finding Slaty-backed Gulls or Yellow-legged Gulls among the ranks of far likelier but similar species, we at times complicate the identification challenge. This almost mandates that plumage be the foundation of gull identification insofar as differences between similar species, particularly those found within an evolving species complex, are mostly feather deep.

But if we embrace the nature of probability and accept that rare and unusual species are unlikely to be encountered, the challenge presented by North American gulls becomes greatly simplified, reduced to telling Ring-billed Gull from Herring Gull and California Gull, birds whose size and structural differences do readily distinguish them. Instead of fighting probability by aspiring to find birds outside their normal



INTRO 11 Herring and Ring-billed Gulls comparison. This photo shows two common species in the *left* foreground. While plumage is very similar, Ring-billed (*center* and *left front center*) is a smaller gull with a smaller, more delicate bill; a more slender body with proportionally longer wings; greenish to yellow legs versus pink in Herring Gull; and a smaller head with a more rounded crown. The larger Herring Gull *behind* the Ring-billeds has a bill pattern similar to that of the Ring-billed, but this occurs only in subadult Herring Gulls in their 3rd year, or in adult birds that are not fully sexually mature. Another subadult Herring Gull is sleeping at *center right*. The standing Ring-billed Gull is a 2nd winter bird with gray, not yellow, eyes; greenish versus yellow legs; immature diffuse scallop-like markings on the breast; and black wings that lack white spots, as in adults. The very large, dark-backed gulls at the *right rear* that have a huge yellow bill with a red spot near the tip are adult Great Black-backed Gulls, which are the largest gulls in the world. The black, white, and gray granite-patterned gull at the *left rear* is an immature Great Black-backed Gull, which is also larger than Herring Gull, and much larger than Ring-billed. These three species are the most commonly seen gulls on beachfronts on the Atlantic coast. New Jersey, March

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ABOUT THE TIME Pete decided to write this book, a woman attending one of his regular bird walks asked of a gull standing on the beach, one that he had identified as a “Lesser Black-backed Gull,” whether it was a 1st cycle or 2nd cycle bird.

To which he replied: “I have no idea,” having no more interest in the bird’s age than he did in knowing what side of the colony it fledged from or how it voted in the last presidential election. All Pete knew or cared about was that it was a certifiable Lesser Black-backed Gull, a determination made on the basis of size (smaller than a Herring Gull); its lean, trim, athletic proportions; its long wings; and its mostly uniform darkish plumage; and supported by the bird’s more petite black bill and punched-in-the-eye bruised look that most immature and subadult Lesser Black-backed often show.

INTRO 12 Immature Lesser Black-backed and Herring Gulls. These two species are very similar as immatures, but Lesser Black-backed Gull (*left*, 1st winter) has a more slender, athletic body structure with longer wings, a more rounded crown, and a typically smaller black bill that shows a small pink spot only near the lower bill base. The immature late 1st winter Herring Gull (*right*) has a bold pink bill with a strongly demarcated black tip; a stockier body structure; a pulled-taffy look to its front face; shorter wings that extend only slightly past the tail; and an overall brownish-gray plumage compared to Lesser’s colder, grayer upperparts and whiter head and upper breast. New Jersey, early April



Also figuring in his determination was the assurance that nonbreeding Lesser Black-backed Gulls, while uncommon to rare across much of North America, are a fairly common summer bird on the beaches of southern New Jersey and so are something to be expected, and the possibility of any other medium to smallish black-backed gull (for example, Kelp Gull or Black-tailed Gull) was remote.

Pete and his group then studied another Lesser Black-backed Gull, this one showing the charcoal-gray back of a subadult as it flew in off Delaware Bay. Ignoring all the other gulls loafing on the beach, the newcomer landed right next to the first Lesser Black-backed. Birds of a feather tend to stand together. Pete could not say how the newly arrived bird established the identity of the first from so far offshore, but he was fairly confident it did not study the bird’s molt pattern. He suspects it made its assessment in much the same way he did: on the basis of size, shape, and overall plumage characteristics.

At a distance, immature Lesser Black-backed Gulls appear overall leaner, long winged, and white headed and have a darker back, whereas immature Herring Gulls are often larger, more compact, and more uniformly brown. Immature Great Black-backed Gulls are conspicuously bulkier, heavier billed, paler overall, and more distinctly black-and-white patterned above.



INTRO 13 Lesser and Great Black-backed Gulls and Herring Gull, immatures. This great comparative photo shows these three species together, with the noticeably smaller Lesser Black-backed Gull (*left*, 1st winter) standing directly in front of the immature 1st winter Great Black-backed Gull, which is much larger and has a bigger, more oval-shaped head; granite-patterned upperparts of gray, white, and black; a much heavier, mostly black bill; and thicker, pink

legs. The 2nd winter Herring Gull (*right*) is between the other gulls in size and shows a heavier bill than the Lesser, with a strong pink base and an overall brownish-gray plumage. Note the plumper-breasted body shape on the Lesser compared to the more slender upper breast but overall stockier body shape on the Herring Gull. New Jersey, early April

range, we advocate embracing probability and letting it work for you, not against you.

What all this means is that if you are in Morro Bay, California, in November and looking at a large, dark-backed gull on the beach, you are almost certainly looking at an adult Western Gull, the expected large, dark-backed gull of California coastal regions. You need not anguish about a possible Slaty-backed Gull, unless this is a challenge you want to undertake. One look at the range maps will assure you that geographic distribution has mostly solved this problem for you.

By relying on probability as opposed to fighting it (that is, accepting that rare birds are rarely encountered), birders are free to adopt a more simplified approach to gull identification. After learning the regularly occurring gulls in a geographic area, birders can then spend time studying the possible expected rarities with a working familiarity of the common birds. As for seeing gulls that are commonly found in Asia, Europe, or South America, it is more satisfying to see them in their native context, where you will become very familiar with them because you will have a larger sample group to study.

We are in no way trying to diminish the challenge presented by gulls or the advantages inherent in a plumage-centric approach to identification. All we are saying is that approaching the challenge of gull identification in a less plumage-centric manner may greatly simplify that challenge.

We also do not present this book as the final word on gull identification. It is more nearly a starting point, one that purports to offer birders a measure of confidence as they explore this fascinating bird group.

INTRO 14 Western Gull and hybrid Western × Glaucous-winged Gull. Shown here is an adult Western Gull (right) and a paler gray-backed Glaucous-winged-type gull (left). The hybrid gull has the gray upperparts of Glaucous-winged, although maybe a bit darker than usual, and blackish outer wings (primaries) that are typical of Western and very unlike the pale gray outer wings on adult Glaucous-winged, which are usually the same shading as the upper back. The body structure is a bit stockier than that of a typical Glaucous-winged as well, which usually shows a more slender, tapered body shape (except for some very large males). Herring Gull is eliminated on the left bird by the pale left underwing; a dusky, not yellow, eye; and the gray inner primary shading. These two species interbreed freely, and in certain areas on the coast of northern Oregon and southern Washington, hybrids are easily found in good numbers. California, November



As for hybrids (that is, birds sired by two separate species, most famously Western Gull and Glaucous-winged Gull), they are simply labeled as “challenging.” They have a variety of possible plumage and structural features taken from both species to create a bird that may show bits and pieces of both adults’ physical and plumage profiles, or that mostly resembles one adult physically but has some plumage features inconsistent with that species but consistent with the other.

When you encounter a puzzling gull that defies identification, it is up to you to decide whether you want to try to figure out what species it is. Or you can turn and walk away. Run, if you like. Birding is a personal sport or hobby, and you have the final say on your ID approach. If your curiosity is piqued, by all means use your field guide to work out the dilemma as best you can, or take a few photos and show them to some gull aficionados to get their opinions.

If dissecting hybrid gulls is a challenge that fascinates you, we enthusiastically encourage you to delve deeper. Buy a copy of *Gulls of the Americas*, by Jon Dunn and Steve Howell (2007, currently out of print), or Klaus Malling Olsen and Hans Larsson’s *Gulls of North America, Europe and Asia* (2004). Also note that David Sibley, in the second edition of his excellent field guide (*The Sibley Guide to Birds*, 2014), dedicates two illustrated pages to the subject of hybridization, and that the balance of his gull section is well conceived, lucid, systematic, and eminently user-friendly.

POP QUIZ I know, I know, it’s hardly fair to pop a quiz now, insofar as you have not even gotten into the book yet, but with gull ID, so much is about comparison. So let’s give it a

try. Try to identify the immature gulls flanking the adult dark-backed gull (see Intro 15).

The adult's charcoal-gray back with contrastingly blacker wing tips and bright yellow legs are traits consistent with Lesser Black-backed. A Great Black-backed Gull would have a darker black back whose shading matched its wing tips, and it would be noticeably larger and bulkier than any other gulls on the beach.

Now for the immature gulls. Here's a hint: the bird on the right is an immature Herring Gull. Herring Gull ranks among the most widespread large gulls in North America, but in some locations it can be uncommon to scarce. You have almost certainly seen this bird. Note the overall compact profile and mostly uniform and coarsely patterned brownish plumage. Also note the ill-defined pinkish-colored base to the long, slender bill. This species also has a thin face that recalls pulled taffy.

Now compare the Herring Gull to the slightly smaller, slimmer, longer-winged bird on the left that has a slender, straight, mostly black bill. Observe the overall colder grayish-brown upperparts, the whiter head, and the upper breast, which is noticeably less spotted and is generally paler than immature Herring's uniform dusky-brown underparts.

Compare the size of the "unidentified" bird to the adult Lesser Black-backed Gull. If you concluded that our mystery bird is anything but an immature Lesser Black-backed Gull, you are wrong, but look how far you have come already. Only yesterday you wouldn't have even looked at the bird, and now you've progressed to misidentifying it. You are now one misidentification closer to getting it right next time. Congratulations!

INTRO 15 Pop Quiz – These three gulls were photographed in New Jersey in early April on the Atlantic coast. Refer to the nearby text to see the ID criteria for these birds and answers as to what species they are.

A BASIC APPROACH TO GULL ID

For all their inherent challenges, gulls do present students of birds with ID advantages.

Most gulls are readily distinguishable as gulls, members of the family Laridae, simplifying the identification process by eliminating the need to initially assign an unidentified bird to a broader grouping or family.

Gulls are mostly large enough to note key differentiating traits relating to bill and head shape, eye color, leg color, and overall plumage characteristics, such as the color of the bird's upper back (silver gray vs. charcoal gray). In addition, gulls typically stay in the open, where they are easily viewed. Insofar as they are often found in places people frequent, gulls are mostly habituated to us and allow prolonged scrutiny and close approach.

Gulls are gregarious, often gathering in mixed-species flocks that facilitate direct comparison between known species and less familiar ones—a boon to identification and one that supports a dynamic comparative ID approach. Knowing the identity of a gull standing next to a mystery gull presents observers with a point of reference for size, shape (slender vs. bulky), bill shape, back color (silver gray vs. charcoal gray vs. black), and body shape (plump breasted vs. slender bodied).

While gulls do present an array of plumages typically arranged by successive molts (replacement of feathers), we find that these plumages—especially among the larger, white-headed gulls—may be combined into three broad, manageable age classes. These age classes correspond to the terms that birders commonly use to organize other bird groups, most notably raptors, according to plumage. These age designations are immature, subadult, and adult (breeding and nonbreeding).

Further clarification can then be added to these basic age groups, such as immature/juvenile, immature/1st or 2nd winter, or advanced or retarded immature or subadult. The term "advanced" refers to a plumage state at a particular age that



INTRO 16 Gulls are typically found in open spaces, such as this beachfront in Daytona Beach, Florida (January), and often in areas people frequent on a regular basis. Thus, they are somewhat habituated to humans and often allow close approach. As long as beach walkers maintain their steady pace, gulls will show no concern. Stop, however, and the gulls will move away. This is a great comparison of two very common gulls on this beach in winter and one uncommon one. The *front* gulls with a charcoal back are nonbreeding Laughing Gulls, while the largest pale gray-backed bird on the *right* is an adult Herring Gull. Try to identify the medium-large subadult gull at *rear left*. Note the emerging charcoal-gray back feathers for a hint. Answer is in the appendix, p. 205.



The *front* gulls with a charcoal back are nonbreeding Laughing Gulls, while the largest pale gray-backed bird on the *right* is an adult Herring Gull. Try to identify the medium-large subadult gull at *rear left*. Note the emerging charcoal-gray back feathers for a hint. Answer is in the appendix, p. 205.

INTRO 17 Gulls often rest in mixed flocks, which allow you to use a familiar gull to establish general size and shape reference points. The smallest charcoal-backed gulls at *left* are the ubiquitous, very common Laughing Gulls, and while most are in nonbreeding plumage here in Florida in late January, note the two birds with completely black breeding hoods. Molt timing is not always consistent in gulls, which creates ID problems for some feather-centric birders who minimize other important features, such as size and structure. For a fun ID quiz, try to identify the other gulls in the photo. Hint: there are six Herring Gulls of various ages in the photo and two other species that are uncommon to rare on this beach in winter. Note body size, bill size and shape, and overall plumage to help with your ID. Answers are in the appendix, p. 205.



is more complete than usual for a species, and the term “retarded” means that the plumage is less complete than usual at a particular age.

Most smaller to medium-sized gulls take only two years to reach full or mostly adult plumage, and these species typically replace their juvenile upper back feathers in early fall with adultlike grayish feathers. Larger gulls typically take three to four years to achieve full adult plumage, and most typically

acquire various amounts of adultlike upperpart feathers in their second or third year.

Immatures: These gulls have a mostly brown or grayish-brown body. This group includes juvenile birds, 1st winter, and in some larger species, 2nd winter birds. Give or take a bit of sun bleaching, feather wear, and bill coloration, we find the basic commonality shared by these brown- and gray-bodied types (ages one to two years) unifying, compelling, and simplifying.

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INTRO 18 These three photos show Herring Gull in immature plumages. The *left* photo shows a fresh juvenile bird (New Jersey, August); the *center* shows a 1st winter immature that has replaced its juvenile upper back feathers with postjuvenile ones in fall (Florida, January); and the bird on the *right* is a 1st summer (one-year-old) immature Herring Gull (New Jersey, May) with a strong pink bill and demarcated dark tip. Some 1st year Herring Gulls have a pink bill with a black tip, and many of these represent central- and western-breeding birds. We label all these birds as immatures because of the uniform brownish-gray plumage and because they lack adultlike feathers on the back, and we further qualify them by age as juveniles or 1st and 2nd winter.



INTRO 19 Smaller gulls reach full adult plumage sooner than larger gulls, and this transition is shown in these four photos of Laughing Gull. Juveniles (*upper left*, New Jersey, August) are mostly brownish overall with strong, buff fringes to the upperpart feathers. First winter birds are labeled as subadults because of the adultlike gray feathers on the upperparts and lower wing panel, and these birds now show white feathers on the head and breast (either by feather wear or replacement) and grayish markings on the head and underparts. Retained worn, brown juvenile feathers are present on the wing panel (wing coverts) and lower rear back feathers (tertials) (*upper right*, Florida, November). Second winter birds (not shown: see Laughing Gull account) are very similar to adults but lack the white outer wing (primaries) spots and have a dusky wash to the sides of the upper breast. Full breeding plumage is acquired by the 3rd year (*lower left*, New Jersey, May), and adult nonbreeding plumage by the 3rd winter (*lower right*, New Jersey, September).

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Subadults: These gulls show a mix of adult and immature plumage traits—for example, variable amounts of gray or black adultlike upper back feathers but with touches or patches of worn immature plumage (typically concentrated in the wings and tail). Species reach their subadult plumage classification at different times. Some examples include Mew Gull and Ring-billed Gull in their 1st winter; California, Iceland, and Glaucous-winged Gulls in their 2nd winter; and many Herring and Western Gulls in their late 2nd and 3rd winter. Smaller gulls, such as hooded gulls, move from a distinct darkish juvenile plumage to a somewhat adultlike plumage by early fall, except for retained juvenile brownish wings and tertials. We call these subadults, even though they are in 1st winter plumage, because of their gray upper back feathers.

Adults: Adult gulls show fully gray, white (Ivory Gull), or black upperparts; white underparts (except for Heermann's Gull); and for the most part, leg, bill, and eye colors consistent with those of adult birds. The presence or absence of white spots on outer wing tips or a touch of vestigial black on the bill or tail of less advanced adult birds is disregarded and does not undermine the unifying commonality evidenced by birds in these advanced plumage states.

Since gulls replace their feathers because of wear at various times of the year and may appear disheveled and messy, you can often see these newer, more neatly arranged feathers molting in to replace the older ones.

Gulls can also be categorized by “age class” or “cycle,” which is the term used in today’s popular classification of plumage conditions typically seen in the initial successive years of a gull’s life.

In any winter gull population, the season when northern-breeding gulls are widely distributed across the United States, the most dominant age classes will be immatures and adults, since the ranks of immatures are bloated by the year’s crop of juveniles. Many immature gulls encountered in winter are fresh-plumaged 1st winter birds whose feathers are neatly arranged and textbook distinctive, their plumage unaffected by the sun bleaching, molt, and wear that affect older birds. Adults also show textbook traits, including unique eye, bill, and leg color. There are fewer confusing subadult birds in these flocks because they have been whittled down over several years by natural attrition. Once a gull matures, it may lead a long life (some up to thirty years or more), accounting for the greater number of adults.



INTRO 20 California Gull plumage variation by age. This photo array shows a 1st winter California Gull (*upper left*, California, February) in its immature/1st winter plumage. The upper back feathers are typical of this age, with a gray background as in adult feathers but with dark centers. These feathers have replaced the dark brown feathers of juvenile plumage. The *upper right* bird (California, February) is a subadult with mostly completely gray upperparts, except for some worn, brown immature feathers on the wing, and a bill that is grayish with a black spot near the tip instead of a yellow bill with a black and red spot, as in adults. The *lower right* photo shows a bird in mostly adult nonbreeding plumage, while the *lower left* photo shows a breeding adult. Both of the lower photos were taken on the same day in California in February, which suggests that the *lower right* bird may be either a 3rd year bird that shows mostly adult plumage but is less sexually mature than full adult birds, or a less sexually mature adult that has not acquired breeding plumage yet.

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INTRO 21 Ring-billed Gull plumage variation. Ring-billed Gull is one of two medium-large, white-headed gulls (Mew Gull is the other) that acquire adultlike upper back feathers in their 1st winter. The photo array here shows the plumage changes and corresponding feather wear of Ring-billed Gull from fresh juvenile plumage (*upper left*, Rhode Island, late July) to adult breeding plumage (*lower right*, Florida, March) during a three-year period. *Upper center* shows an immature/subadult 1st winter Ring-billed in November with fresh gray, pale-fringed postjuvenile upper back feathers and more white feathers on the underparts and head than juvenile birds. The *upper right* photo shows a similar 1st winter bird in January with worn, brown juvenile wing covert and tertial feathers, and with a more streaked head and paler underparts than the *upper center* bird. The *lower left* photo shows a late 1st year bird in April (Florida) with worn and bleached wing feathers and gray feathers on the back without pale fringes, which have worn off. The *lower center* photo (Florida, January) shows a 2nd winter Ring-billed that is similar to an adult but has a greenish-yellow bill and legs versus the bright yellow of an adult (*lower right* bird). The eye is also grayish, versus the yellow of adults. This 2nd year bird (*lower center*) also shows a handful of juvenile-like dark scalloped feathers on the breast, similar to those of early 1st winter birds, and it lacks the white outer primary wing tips that are present on adult birds.



INTRO 22 Examples of molt (feather replacement). Gulls replace their feathers because of wear at various times of year, and you can often see these different feathers in subadult and immature gulls. The *left* subadult Lesser Black-backed Gull has acquired charcoal-shaded upper back feathers that contrast strongly with its immature plumage on the wing panel (New Jersey, July), while the messy immature 1st summer Herring Gull (New Jersey, August) has replaced its worn upper wing panel (lesser and median wing coverts) with new immature 2nd winter feathers in July that are uniform and neatly arranged compared to the irregular, worn, 1st winter feathers. Instead of replacing all their feathers at once, which would compromise their health and safety, birds replace groups of feathers at strategic times to allow for a smooth transition to the next age-related plumage condition.

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GULLS AND GULL-LIKE BIRDS

GULLS Gulls are relatively small to large birds with a proportionally large head and a narrow, pointy, or hook-tipped bill and are found for the most part in or near freshwater and saltwater habitats. With webbed feet, they swim readily and sit buoyantly high on the water. Some species are nimble on land, such as Ring-billed Gull with its quick, mincing steps, and others walk with a rolling sailor's gait (Herring and Great Black-backed Gulls). Awkwardness notwithstanding, no other bird group seems so admirably suited to exploit both an aquatic and a terrestrial life.

Highly social, gulls may forage or loaf in large aggregations on land or in water, often in mixed-species flocks. In the air, they typically soar high on down-bowed, slender, pointy-tipped wings. When landing on water, most plop to the surface rather than dive headfirst (as do terns). On land, they lift off with a short, running, wing-flapping start. Typical plumages are brown, grayish brown, and dirty white in younger birds, and gray, black, and white in adults.

Try to identify all the gulls in this photo quiz. Answers are in the appendix, p. 205.

TERNs Terns are small to medium-sized waterbirds that are smaller than the medium to large gulls, other than the large Royal and very large Caspian Terns. Sharing with gulls basic color and pattern similarities (a gray back and white underparts), most terns are on the whole more slender and paler overall, with black on the head restricted to the cap. Bills are mostly pointy and narrow and lack a hooked tip, except for several larger species that have thicker, heavier bills, and in flight the wings are acutely angled backward, not bowed downward. The tail of a few tern species is long and often splayed, extending slightly to or noticeably past the folded wings of standing birds (Roseate Tern; see Intro 24, below).

As social as gulls, terns may roost with similarly sized gulls on beaches. Even more than gulls, terns are bound to aquatic environments, where they plunge-dive headfirst into the water for fish or swoop low and snap prey from the land or water without landing. When taking off, terns loft into the air without a running start. Flight is more active and nimbler than that of most gulls, and they walk reluctantly.



INTRO 23 Quiz photo: Assorted gulls in early September in Queens, New York. This group of gulls was photographed at the Jamaica Bay Wildlife Refuge in New York City and represents the most common gull species found near coastal areas of the eastern United States. You have encountered all of these gulls in the introduction, so they should be familiar to you. Answers are in the appendix, p. 205.



INTRO 24 Terns are small to medium-sized close relatives of gulls that are even more attached to aquatic habitats. The *left* bird is the very large nonbreeding Caspian Tern, which is larger than the Ring-billed Gull and about the same size as a small California Gull. Breeding Roseate Tern (*center*) is a slender tern whose tail extends noticeably past the folded wings on standing birds. Nonbreeding Forster's Tern (*right*) is a medium-sized tern that is commonly found in marsh habitats.



INTRO 25 Terns have the same shading as many gulls, but their wings are more slender and pointed. Caspian Tern (*left*) shows the dark cap of breeding plumage, while Sandwich Tern (*center*) has the white forecrown of nonbreeding birds (this is a postjuvenile bird [Texas, September] that lacks the yellow bill tip and shows black markings from juvenile plumage on its wings). The Gull-billed Tern (New York, August) (*right*) is a freshly molted 1st winter/postjuvenile bird that closely resembles a nonbreeding adult, which would have an all-black bill. In breeding plumage, both this and the Sandwich Tern have black caps.

JAEGERS AND SKUAS These brigands of the open sea have gull-like bodies but pointy, tern-like wings. The bill is short and hook tipped like that of some gulls. Some jaegers are uniformly dark and recall juvenile Laughing and Heermann's

Gulls. Others show plumage patterns similar to those of many gull species: dark above and whitish below (these light-morph jaegers also typically show white patches on the outer wing, except for Long-tailed Jaeger). Some tails on nonbreeding



INTRO 26 Jaegers are pelagic birds that spend much of their lives at sea, coming to land to breed in Arctic tundra habitats. An assortment of the three jaeger species (which are called “skuas” outside of North America) is shown here. *Top panel, from left:* Pomarine Jaeger, light morph; Parasitic Jaeger, light morph; and Parasitic Jaeger, dark morph. All these birds were photographed in breeding season (*top left*, Texas, May; *top center and top right*, Alaska, June). *Lower panel, from left:* Long-tailed Jaeger, juvenile (New Jersey, September); Parasitic Jaeger, adult light morph (Alaska, June); and Pomarine Jaeger, adult light morph (North Carolina, April).

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jaegers are like those of gulls (Pomarine Jaeger), but all have much longer tails in the breeding season that project well past the folded wings on standing birds (see Intro 26, jaeger composite).

Outside Arctic breeding environments, jaegers typically forage well offshore in marine environments (many gulls are mostly coastal and typically remain within sight of land). Jaegers often pursue terns and gulls to steal fish. In mixed feeding flocks, the jaeger will be the pursuing bird. Caution: several dark-bodied gull species (especially juvenile Laughing Gull and Heermann's Gull) also chase other gulls and terns to pirate fish and may be confused with jaegers.

BOOBIES AND GANNET These are large seabirds (most larger than gulls) with a tapered face; a long, strongly pointed bill; a pointy tail; and long, pointed wings that are angled backward or held stiffly straight in gliding birds. These birds

are often seen flying single file, low over the water. Birds in this grouping plunge-dive for fish, often from great heights, or arrow into the water headfirst. Diving birds fully submerge themselves under the water and often swim quickly after fish (boobies), something most gulls do not do.

SHEARWATERS Shearwaters are medium-sized, slender-winged seabirds specialized to glide low just above the water's surface on narrow-set wings, flapping sparingly and soaring rarely. Shearwaters are highly social and are generally found far from shore. In migration, flocks of some shearwater species may number in the many thousands and sometimes in the hundreds of thousands. Birds resting on the water often sit in densely packed "rafts." Shearwaters differ from gulls in their slender and straighter-winged profile, low gliding flight with spare wing beats, and tendency to dive for prey.



INTRO 27 Boobies are large seabirds that spend most of their lives in ocean habitats. *From left:* adult Brown Booby (Grand Cayman, March), immature/juvenile Brown Booby (Florida, May), and adult Masked Booby (Cuba, January).



INTRO 28 Northern Gannets are larger than boobies and are often seen closer to shore. They also breed in cold northern waters, while boobies are tropical species. Shown here are a 1st winter Northern Gannet (*left*, Florida, January) and a subadult (Florida, January).

FULMARS Fulmars are like stocky, large-headed shearwaters that glide on stiff, straight wings and are also found in marine environments. The plumage of light-morph Northern Fulmar resembles that of many large adult gulls, but the bill of fulmars is stubby and the wings are held straight, not crooked downward, as in gulls.



OSPREY This unique, crook-winged, black-and-white bird of prey is often mistaken for a gull but is broader winged and enters the water for prey talons first. Showing slotted wing tips (with individual outer feathers splayed), Ospreys are distinguished from gulls, whose outer flight feathers are fused to a point. Ospreys also carry fish in their talons, while gulls carry food in their bills.



INTRO 29 Shearwaters are highly pelagic seabirds that are often seen gliding low over waves on stiff wings. Shown here are Great Shearwater (*left*, Maine, June) and Galapagos Shearwater (*right*, Galapagos, October), which was formerly a subspecies of Audubon's Shearwater.

INTRO 30 Fulmars are pelagic seabirds that resemble gulls in shape and plumage. Shown here is a light-morph Northern Fulmar (New York, February).

INTRO 31 Ospreys are large birds of prey that are found near aquatic habitats, where they feed exclusively on fish. Their long, angled wings that bow down when they glide are very similar to the wings of some gulls, and thus Ospreys are often mistaken for gulls at a distance. Both photos were taken in New Jersey in October.

