

# The Practiced Eye



## Terns Overhead

Arctic Tern. Photo: B. Gadsby/VIREO (g09/1/036).

**Kenn Kaufman**

**T**HEY FORM AN INTEGRAL PART OF the summer scene: when the sun shines on blue water and green marsh, there always seem to be white terns sweeping by overhead.

While terns add grace and beauty to the summer landscape, they also add challenges to our summer birding. This is especially true of the four medium-sized species, the Arctic Tern (*Sterna paradisaea*), Common Tern (*Sterna hirundo*), Forster's Tern (*Sterna forsteri*), and Roseate Tern (*Sterna dougallii*). These four are superficially so similar that, to a casual view, they may seem identical.

### **Photographs from VIREO**

To increase the challenge of naming these terns, some of their best-known field marks are not fully reliable. For example, their bill colors—emphasized in many bird guides—are variable. An all-red bill is supposed to be characteristic of Arctic Tern, but Common Tern can show this, too. Roseate Tern is usually depicted as having an all-dark bill, but for a brief period during the breeding season its bill turns extensively red-orange at the base. And separating Common from Forster's by the shade of

red versus orange on the bill requires good light and a good imagination.

Another tricky area is the upperside of the wing. Because of the complicated timing of the molt of the primaries, and because these feathers often darken when they are in worn condition, upperwing patterns can be misleading. For example, the upperside of the wing in Forster's Tern is supposed to show pale silvery primaries (and usually does), but two-year-old Forster's in mid-summer can look relatively dark-winged.

For the purposes of this season's column, we are focussing on two key areas that are visible when the terns are over-

head. the pattern on the tips of the primaries (the primaries are the flight feathers on the outer half of the wing), and the pattern on the outermost tail feather on each side. A few words about shape and flight style are also included, since these aspects are essential in naming any bird in flight.

In looking up at the underside of a fully spread wing, the only flight feather we can see in its entirety is the outermost long primary. The inner edge of that feather covers the outer edge of the next one, and the inner edge of the next covers the outer edge of the one after that, and so on; so what we see of the primaries is the outermost long one, and the tips and inner webs of the rest. Markings on single feathers on a flying bird can be quite hard to see, but the overall *patterns* that they create are easy to see and quite distinctive on these terns.

In addition to the actual pattern of these primaries, another point that is sometimes useful is the *translucence* of the flight feathers—the extent to which they glow bright white when lit up from behind. This must be noted carefully, and is useful only when the tern is overhead with strong back-lighting.

The pattern of the long, streamer-like, outermost tail feather on each side is also a critical point in identification. To use this as a field mark, we must be certain that those feathers are actually present (they may be broken or missing); if the tail looks asymmetrical or unexpectedly short, the tail pattern will not be a usable field mark. The tail patterns described and pictured here apply to adults in summer plumage only. These terns molt their tail feathers twice per year—in early spring and early fall—and the outermost tail feathers worn in winter plumage are usually shorter and slightly broader than those worn in breeding plumage.

Arctic Tern nests abundantly in Alaska and northern Canada (and across much of northern Europe and Asia), and south locally along the coast as far as Massachusetts. In migrating to and from its winter quarters in the Southern Hemisphere, it usually travels far offshore; in inland areas it is considered to be strictly accidental, although it may be occasionally overlooked.

Of the four terns considered here, Arctic has the “cleanest” underwing pattern, bright white with a very narrow black leading edge to the outermost long



Arctic Tern. Photo: Sidney Bahrt/VIREO (b15/1/015).



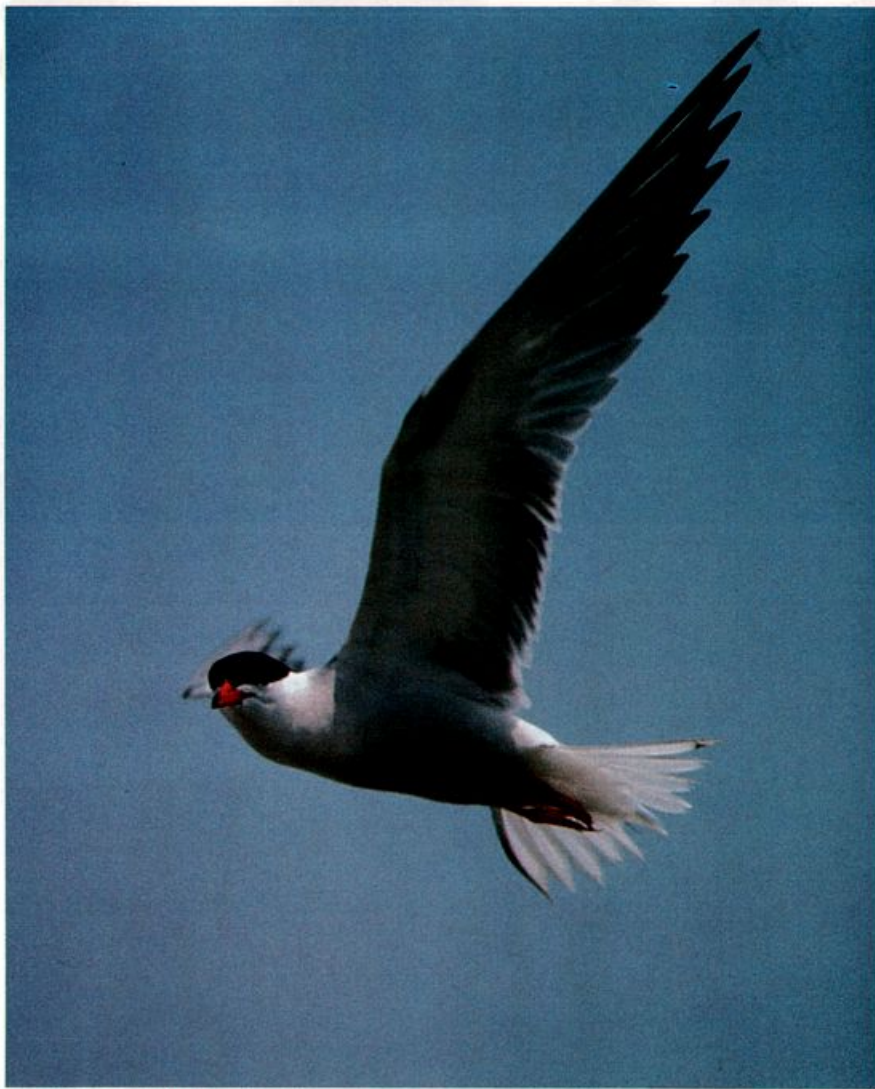
Arctic Tern. Photo: Sidney Bahrt/VIREO (b15/1/016).

primary and with a narrow, sharply-defined black trailing edge running along most of the primaries. It also has the most translucent flight feathers, with the primaries glowing brightly when lit from behind—as when the bird hovers overhead on a sunny day. The white tail of Arctic Tern has very narrow black edges on the outermost tail feathers, not apparent except at close range; at a distance, the tail looks very white all over.

Arctic Tern has a small, rounded head and a short bill. In flight, this gives it a

small-headed look unmatched by any of the other terns discussed here. Enhancing this effect, its tail is also quite long. Its flight style is particularly graceful. Each upstroke of the wings is a relatively quick movement, while the following downstroke is slow and emphasized, giving the bird the appearance of floating through the air.

Common Tern breeds mostly in southern Canada and the northern United States (and widely in other parts of the world). It is a regular migrant in



*Common Tern. Photo: Arthur Morris/VIREO (m17/1/017).*



*Common Tern. Photo: Arthur Morris/VIREO (m17/4/003).*

many parts of the interior and the southern United States, but it winters mostly to the south of us. The large numbers sometimes reported on Christmas Bird Counts probably include some misidentified Forster's Terns

The underwing of Common Tern shows much more black than that of Arctic. The black on the leading edge of its outermost long primary is generally more obvious, and the black trailing edge is broader and less sharply defined. The flight feathers of Common are also less translucent than those of Arctic, usually admitting only a little light on the area of the inner primaries and outer secondaries. On the tail, the black outer webs of the outermost tail feathers are usually more obvious in the field on Common than on Arctic, often showing up even at a distance.

Overall shape is also a helpful field character for experienced birders. Common Tern has a larger head, longer bill, and shorter tail than Arctic Tern, creating a different flight silhouette—as if the wings were set farther back, at the mid-point between the tip of the bill and the tip of the tail. Its flight-action appears less graceful, with deep wingbeats having equal emphasis on the upstroke and downstroke.

Forster's Tern, unlike the other three species discussed here, is a North American specialty, not moving south beyond the northern Caribbean in winter and reaching Europe only as an accidental stray. From southern Canada south through the United States it is generally the most common of these four, especially inland, and it is the only one regularly seen in mid-winter.

Underwing pattern on Forster's is quite similar to that of Common Tern, although the markings on the trailing edge are generally not quite as dark nor quite as extensive. Forster's Tern shows relatively little translucence in the wings, mostly on the secondaries and near the tips of the innermost primaries.

With a close view, tail pattern is the best distinction for a Forster's Tern overhead. The tail of Forster's is actually very pale gray, tending to look white in bright sunlight; but the outermost tail feather on each side is dark gray on the inner web and white on the *outer* web, the opposite of the pattern on Common Tern. The only time this field mark may be misleading is when the tail is so tightly closed that the outer tail feathers are actually crossed (as in one of the photographs printed here).

With practice, shape and flight style may help to separate Forster's from Common Tern, although the two are very similar. Forster's has a slightly longer and heavier bill, and a longer tail. Its wingbeats usually appear to be shallower and less labored than those of Common Tern.

Roseate Tern is widespread elsewhere in the world, especially in the Indian Ocean and the southwest Pacific, but it has the most limited North American range of any of these four terns. Here it breeds only in scattered colonies in the Maritime Provinces, New England, New York, and Florida, and there is recent evidence that it is declining at many of its North American sites. Away from the immediate vicinity of these colonies it is a very rare migrant on the coast, and purely accidental inland.

A good view of the underwing will immediately separate Roseate Tern from all similar species. Unlike the others, Roseate has no dark trailing edge on the primaries. Its outermost long primary has a dark leading edge out to the tip, and the next two or three primaries inward may show subterminal dark areas, but the trailing edge itself is narrowly white and translucent. The tail of Roseate Tern really is white all over (although those of the other three species often look that way at a distance or in bright sunlight).

The bill of Roseate Tern looks quite long—it is as long as that of Forster's, but thinner—and the bird is also rather long-headed and very long-tailed. Its wings are proportionately shorter than those of the other three species, and this tends to enhance the elongated effect of the bird in flight. With its shorter wings, the wingbeats of Roseate are rapid, shallow, and stiff, creating a flight-action very different from those of the other three species.

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VIREO (Visual Resources for Ornithology), at the Academy of Natural Sciences of Philadelphia, is the world's first and foremost scientifically-curated collection of bird photographs. Established in 1979, the collection now holds well over 80,000 images, representing over one-third of the world's bird species. For more background, see the feature on VIREO by Myers *et al.* in *American Birds* Volume 38, Number 3, May–June 1984.

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*Forster's Tern.* Photo: Robert Villani/VIREO (v05/2/091).



*Forster's Tern.* Photo: Robert Villani/VIREO (v05/2/093).



*Roseate Tern.* Photo: M. P. Kahl/VIREO (k01/31/222).



*Red and White-winged Crossbills. Painting/Louis Agassiz Fuertes. Top left: immature male Red; top right: adult male Red; upper left: female Red; middle right: female White-winged; lower left: immature male White-winged; bottom center: adult male White-winged. Painting courtesy New York State Museum Albany New York*