

DECEMBER PHOTO QUIZ ANSWERS

A California Focus

The three birds in this quiz are typical of California, and each of them also represents a recognizable subspecies characteristic of the California mainland. While keen birders are becoming more interested in identifying field-recognizable forms, it is important to keep in mind that probability may shape our opinions about whether a form is recognizable or not. Non-migratory forms may be assessed on the basis of their range more often than by their physical appearance. Such identifications may be practical, but are they perhaps too easy?

Photo quizzes offer an opportunity to test our skills without knowing the geographic location of the bird. In the examples that follow, the first two birds can be confidently assigned to a specific subspecies. Although there may be much interest in distinguishing between the two subspecies of the third bird, in this quiz the situation is probably hopeless.

Another theme to this month's quiz is that all three birds were photographed in Santa Clara County in northern California.

Quiz Photo A

Until relatively recently, Quiz Photo A would have been trivial. It's obviously a scrub-jay, but recent taxonomic changes should make us examine it more closely. There was a time when there was only one "Scrub Jay", and the only identification contender was Mexican Jay, a much-duller, more blended-looking species. But the three-way split of the "Scrub Jay" into the Western, Island, and

Florida Scrub-Jays has made the situation more interesting.

The Florida Scrub-Jay inhabits extensive stands of Florida scrub. Remnants of this habitat have limited populations of Florida Scrub-Jays, one of which has been introduced. In many areas, these birds have been the subject of intense ornithological study, and those study-birds are often revealed by a variety of bands on their legs. This bird shows no such bands, but it is best to use other characters to make our identification.

The Florida Scrub-Jay differs most prominently from other members of the scrub-jay group in its extensively pale forehead and crown. The forehead, including the white supercilium, blends into a pale blue on the crown, in a manner that is unique to this species. The adult Florida Scrub-Jay also has dark-blue undertail coverts. Our bird has a deep-blue crown and forehead, suggesting one of the western species instead.

On Santa Cruz Island off southern California a distinctly bright, large species occurs: the Island Scrub-Jay. If you figured that the theme of these mystery birds is California, you might have guessed that this bird is likely an Island Scrub-Jay. Supporting that identification is the bright blue coloration, strongly contrasting necklace, and evident blue undertail

Note that it is impossible to judge the actual size of our bird. In fact, size can be one of the most difficult features to judge on any bird in the field. Whenever we have species-pairs that look similar, but which differ primarily in size, there will inevitably be identification disputes. Species such as Cooper's vs. Sharp-shinned Hawks or Greater vs. Lesser Yellowlegs are classic examples of species pairs that foster endless debate.

The same could be said for the Island vs. the Western Scrub-Jay except for the isolation of the former on a single island off southern California. Island Scrub-Jay has never been seen anywhere else, and Western Scrub-Jay has never been

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recorded on any of the southern California Channel Islands. Thus, most birders will be happy to go to Santa Cruz Island to see the endemic species and convince themselves of the bird's large size and bright coloration.

The blue undertail coverts have been suggested as a possible character separating Island Scrub-Jay from the mainland bird, but this mark varies in both species. Male Island Scrub-Jays invariably show blue undertail coverts, and many females do as well. But Western Scrub-Jays, especially males, may also show this feature. The blue undertail coverts of our mystery bird, then, do not make it an Island Scrub-Jay.

The Island Scrub-Jay is famous for its oversized bill, but there is a substantial amount of sexual dimorphism in this feature. Males have much larger bills than females. The bill on our bird is within the range of female Island Scrub-Jay, but perhaps more typical of Western Scrub-Jay. The painting (p. 315) in the fourth edition of the National Geographic guide suggests that Island Scrub-Jay is much paler below with a better-defined blue necklace. In fact, there are no such differences.

If we cannot judge size in the photo, how can we tell which species it might be? A feature I've noticed is that the forehead and nasal tufts of Island Scrub-Jay are black, whereas those of Western Scrub-Jay are dark blue, extending from the crown to the bill. This all-blue coloration can be seen in this Western Scrub-Jay photo.

But that is not the end of the story. There are, in fact, three well-marked subspecies-groups of the Western Scrub-Jay. In the ABA area, the "California" Scrub-Jay (*A. c. californica*) is found throughout most of the state except at high elevations and in the eastern deserts. East of the Sierra Nevada in California, the California race is found in the southern Great Basin, north to about Mono County, where it is replaced by a somewhat duller subspecies, the Woodhouse's Jay (*A. c. woodhouseii*), which ranges throughout the rest of Great Basin. Although some specimens have been identified as hybrids between these two groups, currently there does not appear to be much contact, if any, between these subspecies during the breeding season (J. L. Dunn, personal com-

munication). Just east of California, however, in far-western Nevada, intermediate birds are the norm, especially in urban habitats around Reno and Carson City (Ted Floyd, personal communication).

The Woodhouse's Jay is generally darker gray and less-white below, with a less-distinct necklace and more-blended gray patch on the back. In many ways, Woodhouse's Jay looks intermediate between California Scrub-Jay and Mexican Jay. A third subspecies, *remota*, of the Western Scrub-Jay is isolated from the others in Mexico. It is pale and lacks much of a necklace.

The fairly white underparts, well-defined necklace, overall deep-blue coloration, and blue forehead identify our bird as the California subspecies of Western Scrub-Jay.

Also, there are two other excellent points of distinction—not evident from a still photo—between the California and Woodhouse's groups: The California birds are much bolder and tamer than the interior birds, and they give louder, sharper, shriller calls, with an electric-buzzer quality.

This photo was taken on 30 April 2000 in Grant Park, Santa Clara County, California, by Peter LaTourrette.



Quiz Photo A—late April.

QUIZ PHOTO B

The broad, blurry streaks on the underparts of this bird may cause initial bewilderment if taken too seriously. In fact, almost any bird can look streaky if it is wet from recent bathing or if the gray bases of its body feathers have been exposed during recent feather ruffling. This is the case here.

Real birds often have such anomalies that make them look unlike field-guide images. Photographic effects can enhance the contrast to make the situation even worse. In the present case, the markings on the underparts are merely an artifact of the gray bases showing under the greenish-yellow tips to the belly feathers. This effect is likely due to wear, and, although individuals in the field may look like this, it is an ephemeral part of the bird's appearance.

Otherwise, this small greenish bird with an eye-ring and an upright pose looks as if it might be some kind of flycatcher, possibly an *Empidonax* flycatcher. There are several possible species in that genus we might consider. The

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wings are hidden, making identification tricky. However, before trying to figure out what kind of flycatcher we have, let's make sure it actually is a flycatcher.

Flycatchers have flattened bills with a slight hook at the tip. Our bird's bill has a slight hook, but the bill could hardly be called flattened. In fact, it looks rather thick and blunt. Many species of flycatchers have some pale coloration on the lower mandible. Our bird seems to have an all-gray-colored bill. So it is not a flycatcher.

The somewhat broken eye-ring and yellowish coloration suggest a Ruby-crowned Kinglet. But, again, the bill structure seems wrong for a kinglet, which has a black and finely pointed bill. Another feature of our bird that is not seen on kinglets is the scaling on the legs. Kinglets have smooth tarsi and usually show pinkish or yellowish toes as well as a generally small-headed appearance. The large head, gray plated legs, and rather heavy, hooked bill suggest that we are dealing with a vireo.

We cannot see whether our quiz bird has wing-bars, but its face pattern eliminates any of the vireos without wing-bars, all of which have a superciliary stripe. We can quickly eliminate those species that have strong, well-defined spectacles and instead focus on those species which have faint or more-ill-defined eye-rings.

The white—rather than yellow—lores should eliminate White-eyed and Thick-billed Vireos, leaving us with the confusing assemblage of Hutton's, Bell's, and Gray Vireos. The extensive greenish coloration of our bird eliminates the drab Gray Vireo and the drab California subspecies, *pusillus*, of Bell's Vireo. But farther east, races of Bell's Vireo such as *arizonae* and nominate *belli* can be rather greenish above and yellowish below.

However, the shape of the eye-ring differs consistently between Bell's and Hutton's Vireos. On Bell's the eye-ring has a small break just below the loreal area, and it usually has a break behind the eye. The eye-ring of Hutton's has a break on top of and often below the eye, and has no break in the loreal area. This difference is also helpful in separating some

pale Hutton's Vireos from Gray Vireos, which tend to have a more-complete eye-ring. Another difference—usually obvious in the field but not necessarily from a photo—is the Gray Vireo's tendency to cock its tail and appear surprisingly wrenlike. The eye-ring shape of Hutton's Vireo is more like that of Ruby-crowned Kinglet than any other vireo, resulting in potential confusion between these species.

For our California theme, we should mention that there are two distinctive populations of Hutton's Vireo in North America. The Pacific subspecies-group (*huttoni*), which consists of six named subspecies, is brighter and greener,

whereas the Interior or Stephens's subspecies-group (two subspecies) averages paler. The Interior races tend to be slightly larger with a whiter (less yellow) breast and wing-bars. However, Hutton's Vireos may become paler with wear, and it is not always obvious which subspecies one is seeing, except by virtue of their non-overlapping ranges and non-migratory habits.

The songs of Hutton's Vireos are variable, especially early in the season when they appear to be practicing. However, the calls are more stable, and I believe the calls of interior birds are decidedly different from those of our coastal birds. One of the typical calls of California birds is a whiney descending whinny or laugh, which I

have not heard from birds in Arizona or New Mexico.

It is natural to speculate that the two populations, existing in isolation, might represent distinct species. Like the scrub-jays, it is always worthwhile to note and study distinctive subspecies when the opportunity arises.

This fairly green Hutton's Vireo with yellowish underparts is typical of the California and West Coast populations. It was photographed at Jasper Ridge in Santa Clara County, 12 April 1993, by Peter LaTourrette.



Quiz Photo B—mid-April.

Quiz Photo C

Often, when one is assessing an unfamiliar bird, bill shape is critical in determining the family-group to which the bird belongs. The distinct, downcurved bill of our third

quiz bird might make a beginning birder consider the possibility of some sort of curlew or other shorebird. However, its bulky shape and webbed feet should eliminate any such thoughts. It looks more like a gull except for its rather graceful but odd bill shape. Bill deformities are fairly uncommon in birds, but they occur often enough that we need to be wary about relying too much on bill shape if the rest of the bird doesn't compute.

The bill is covered with a horny sheath called *ramphotheca*, which covers the maxillary and mandibular bones. The chemical composition of this sheath is a protein similar to that of feathers, but its production is modified so as to create the distinctive and varied bills that we see in typical modern birds. *Ramphotheca* is laid down in layers, like the skin of an onion, and continues to grow from the inside out. The outer layers die and slough off in normal wear and tear. Often, birds will be seen wiping their bills, and one of the functions of bill-wiping is to clean off loose *ramphotheca* that may have accumulated.

Because *ramphotheca* may not be produced at an even rate, bill deformities can occur. These may appear as warts or bulges on the bill, but the most common type of deformity is an "overbite", in which the tip of the upper mandible keeps growing well beyond the length that it should. This phenomenon may also result in crossed bill-tips in species other than crossbills. In some cases, it has resulted in serious misidentifications, such as a Wilson's Phalarope that was published as a first state record of Curlew Sandpiper in Utah, plus at least one such similar claim in California. As it turns out, an overproduction of *ramphotheca* is exactly what has happened to our mystery bird. Its upper mandible has continued to grow unchecked, producing this aberrant, strongly hooked bill shape.

In the present case, our best strategy is to ignore the deformed bill and to try to concentrate on other characters. The overall shape and plumage suggest that it is a species of gull. That said, some will give up right there because it's not a "clean" adult in alternate plumage. Many birders ignore immature gulls because of the complexities involved and an inability to feel completely comfortable with their tentative identifications.

The problem stems partly from the fact that similar age-classes of different species look more like each other than like different age-classes of the same species, e.g., a first-winter Herring Gull looks more like a first-winter Western Gull than it does an adult Herring Gull. And an adult Herring Gull looks more like an adult Western Gull than it does a first-winter Herring Gull.

Despite the challenges, I recommend gull identification as an exercise for birders of all skill levels. Gulls have several advantages. They tend to stay put and often can be coaxed in with stale bread or popcorn, giving the observer ample time to confirm many features. Start with adults and work your way through the different age-categories until you feel comfortable identifying all the species in your local flocks.

Gull identification needs to be approached a little differently from the method applied to so many other birds. With other groups, we try to identify them first at the species lev-



Quiz Photo C—mid-March.

el and then figure out their age, sex, and perhaps subspecies. With gulls, we usually need to get the age first, before the species. The overall brown coloration of the body of our bird indicates that it is a first-winter plumage of one of our large white-headed gulls. Two of the smaller gulls, Ring-billed and Mew, can be eliminated by a number of features. Ring-billed in first-winter plumage has a white body and more-strongly-patterned greater wing-coverts. The wing-coverts on our bird are very worn and probably should not be used for identification, but only juvenile Ring-billed Gull would be this brown on the body, and juveniles would have much broader

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white edges to the back and body feathers, and they would not show extensive wear on the wing-coverts. Mew Gulls from the West Coast populations do keep a gray-brown coloration on the body through their first winter, but they are less coarsely marked and have a smooth gray mantle.

Other candidates, such as Glaucous, Iceland, and Glaucous-winged Gulls, can be eliminated by their pale wing-tips and overall paler coloration. The more-neutral-gray coloration to the mantle feathers eliminates some of the darker-winged species, such as Slaty-backed, Kelp, Lesser Black-backed, Great Black-backed, Western, and Yellow-footed Gulls.

Next, consider Herring, Thayer's, and Yellow-legged Gulls. All three have an overall brown first-winter plumage similar to that of our bird, but none of them shows decidedly gray mantle feathers with dark brown shaft streaks and dark subterminal bands on some of the individual feathers, as seen here. Instead, their mantle feathers are brown-centered with pale fringes.

Another possible candidate might be the vagrant Black-tailed Gull, but that species is very distinctive in first-winter plumage, showing a decidedly whitish facial area around the base of the bill.

What about California Gull? The California Gull in first-winter plumage typically shows pale gray mantle feathers with brown internal markings, just like our bird and unlike the other candidates. The overall brown color to the rest of the body plumage, plus the dark wing-tips and tail, are also

good for California Gull.

The bill is certainly wrong for California Gull, but it's also wrong for any other gull species in the world. Identification of any problematic species requires assessment of a combination of characters. In this case, the bill is wrong, but that does not lead us to any other candidate species, and all other visible characters point to California Gull. It also happens to tie in nicely with our California theme.

As noted earlier, each of our quiz birds belongs to a recognizable subspecies that is typical of the California mainland. The California Gull has been divided up into two subspecies: a larger and paler subspecies, *albertaensis*, breeding in the northern United States and Canada; and a smaller and darker subspecies, *californicus*, breeding in the Great Basin and California. However, identification of these two subspecies in the field is difficult, especially when dealing with a single bird. The differences in mantle color of adults are slight and are not evident at all in the gray coloration of first-year birds, because that gray color tends to be paler than the solid gray mantle color of adult California Gulls.

This California Gull was photographed at Almaden Lake Park, San Jose, Santa Clara County, California, 11 March 2000, by Peter LaTourrette. California Gulls of the nominate subspecies breed not too far from here in San Francisco Bay, and this bird is probably of that subspecies, but that is a guess based on percentages, not on incontrovertible fact.