

The Uncommon Common Thing

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The artistic science of bird identification has made astronomical progress in recent decades: first the transition from shotgun ornithology to visual identification in the field; then the advent of convenient field guides like the brilliant one Roger Tory Peterson introduced in 1934; and more recently still the consolidation of new knowledge of plumage details, molt schedules, structure, and distribution into advanced field and identification guides. There is no question that, in general, progress has been made: identifications considered impossible just a few years ago are now made, routinely and correctly, even by beginning birders. But wise observers temper their enjoyment of new-found power: some of today's truths will surely succumb to better information in the future.

Meanwhile, like any body of knowledge, today's vast corpus of bird-identification information is structured in a particular way — structure that, while organizing the information into useable form, also imposes on it certain limitations. For any specific identification guide, a host of factors (from the author's purpose, to the nature and extent of his or her personal experience, to the vagaries of the publishing industry) determine what information is selected and emphasized. In any field situation, the particular mix of information in the guides at hand interacts with the experience and knowledge of the birder involved, the conditions that prevail in the field, and the variability of the species under consideration. Sometimes, it turns out, we know less than we think we do, and it is the unfortunate nature of knowledge that we don't know what it is that we don't know.

Using a challenging identification problem I encountered this past spring as a case study, this article examines how gaps in various bodies of information can exacerbate each other, sometimes making a wrong answer look alarmingly right. The instance involved the lamentably common birding dilemma of an odd-looking bird that might (or might not) belong to one of several unusual species with which the observers have limited first-hand experience. Relying on what I could piece together from my own experience and the books on my shelves, I tried to decide whether it was worth calling in reinforcements.

On March 30, 2000, I received a call from Allan Keith reporting that he had found a martin flying over Crackatuxet Cove, at the southeastern corner of the Edgartown Great Pond on Martha's Vineyard. Following several days of sustained southerly winds, a late-March martin on the Vineyard was not too much of surprise: migrants such as Little Blue Heron, Great Egret, American Kestrel, Pine Warbler, and Sora had been found on the Island the day before, and it turned out later that a Prothonotary Warbler and two early Indigo Buntings arrived around the same time as the martin. I assumed that Allan's bird was a Purple Martin, and Allan said nothing to dissuade me; still, he hinted, the bird looked odd enough so that I might enjoy taking a peek. After all, one species of tropical martin — a Brown-chested on Monomoy on

June 12, 1983 (Veit and Petersen 1993) — has already been recorded along the southeastern coast of Massachusetts, and Martha's Vineyard has a well-deserved reputation for intercepting vagrants.

Allan's directions brought me to the bird without difficulty, and within moments it obligingly made a low-level pass directly over my head. I ruled out Brown-chested Martin almost instantly: the bird lacked the distinctive Bank Swallow pattern of a well-defined breast-band with a much paler throat that is the best field mark for this species (see photo captions in *Field Notes* 52[1], p. 4). Still, I had to agree with Allan: the bird fit badly with my mental image of a Purple Martin. Small and pale underneath, it showed, very obviously, a pale nuchal collar extending up behind the face: this characteristic of Brown-chested Martin is obvious in the cover photo of *Field Notes* 52(1), but I had never noticed it on a Purple Martin. So I took some notes, returned home, and consulted as many relevant identification guides as I could lay my hands on, even returning with the books for a second look later that day, when I was able to snap several poor but marginally helpful photographs. In all, I watched the bird for a total of about two hours.

That the bird was a martin was beyond doubt, given its overall shape and mix of powerful straight-line sprints, towering spirals, and protracted, fixed-wing airplane glides, mostly over the water of the cove and nearby portions of the Great Pond. It was associating with several Tree Swallows and a single Barn Swallow, sometimes engaging in midair squabbles with the former species, facilitating comparison of size. In contrast to my image of Purple Martin, this bird appeared only marginally larger than a Tree Swallow in length and wingspan; I estimated that the difference in each of these measurements could scarcely have exceeded half an inch, although

broader wings and a bulkier body made the martin appear much the more substantial bird. Quite uniform in color, the martin's back was brown, with faint, glossy, purple highlights visible in some light. The bird had a fairly uniform dusky wash limited to the extreme upper breast and throat: most of the breast, the belly and undertail coverts, and the flanks all appeared white — about the pattern you would expect on a Northern Rough-winged Swallow. (A photograph subsequently showed that the dark wash extended along the armpits under the wings — one example of how careful field observation can miss significant details.) At some moments, the bird appeared to have a partial dark belly-band, a characteristic independently noted by Gus Daniels (pers. comm.) when he and Allan returned to view the bird, but it was hard to tell whether this band was truly present or merely resulted from ruffled feathers around the legs. The end of the tail was moderately forked; the head coloration (this turns out to be



Photograph by the author

**Summary of Various Characteristics of Immature Female Purple Martins
According to Various Sources**

	SIZE	FOREHEAD	UNDERPARTS	"COLLAR"
Peterson 1980	7-1/4 – 8-1/2 inches (vs. 5-6 for Tree Swallow)	No info; not shown in drawing	No info. on imm.; female "light-bellied; throat and breast grayish"; drawing suggests extensive streaking	Often present on female
National Geographic 3 rd Ed.	8 inches (vs. 5-3/4 for Tree Swallow)	Not mentioned in text; appears dark on drawings of imm. m. and f.	"Gray below"; drawing shows pale belly, extensive dark wash on throat, breast, flanks, undertail coverts	Not mentioned in text, absent in drawings
Pyle et al. 1987	Female wing chord 132-145 mm. (vs. 98-125 for Tree Swallow)	No info.	Without purple feathers; undertail coverts without dusky centers	No info.
Howell & Webb 1995	7.3-8 inches (vs. 6.3-7 inches for Gray-breasted Martin, 5.2-5.7 for Tree Swallow)	Gray-brown crown with paler forehead	Chest and flanks paler, more uniform than ad. female, w/ indistinct fine dark spots and streaks. A whiter belly contrasting with chest suggests other martin spp.	Pale collar: f. Purple "only martin with pale forehead and collar"
Stiles and Skutch 1989	6-3/4 inches (vs. 6-1/2 for Gray- breasted Martin, 5-1/2 for Tree Swallow)	Dusky brown with pale feather tips	Chest like forehead and collar; lower breast and belly whitish to grayish- buff, "more heavily marked" than Gray- breasted	Dusky brown with pale feather tips
Hilty and Brown 1986	7.5 inches (vs. 6.8 for Gray- breasted, 5 for Tree Swallow)	Frosty grayish; forecrown occasionally dark; otherwise useful for separating from other martins	Lower underparts lightly to heavily streaked; darker, more heavily streaked than similar martins ("Gray- breasted virtually lacks streaks")	Pale area on sides of neck and nape

important in distinguishing New-World martins) was quite uniform, except for the pale crescent along the rear margin of the auriculars, mentioned above. On my second visit, in looking for the pale forehead mentioned by several sources, I thought I could detect in some lights a thin, paler area above the bill and on the very lowest portion of the forehead, but the pronounced pale area some sources (e.g., Howell and Webb 1995) attribute to female-type Purple Martins was not apparent.

The characteristics that were most troubling to me (and I believe to Allan) were the bird's small size and its extensively pale underparts. I think of Purple Martins as being dark even in female-type plumages, and substantially larger than Tree Swallows, an impression enhanced by most field guides: the dimensions given in Peterson 1980, 7-1/4 – 8-1/2 inches for Purple Martin versus 5-6 inches for Tree Swallow, yield a size difference ranging from 1-1/4 to as much as 3-1/2 inches, and other field guides consulted fall pretty much within this range. Since Central and South American guides suggest that Gray-breasted Martin is significantly smaller than Purple, I began to wonder whether Allan had done it again. Adding momentum to this possibility was the pigmentation of the underparts of the martin, which seemed to fit much better with Gray-breasted than with Purple Martin. At one extreme, the National Geographic field guide (third edition) shows heavily marked underparts on all female and immature Purple Martins, with the dusky wash extending to the lower breast and dark streaking on the flanks and undertail coverts; to varying degrees, other sources concur that an immature female Purple Martin should be more heavily marked on the underparts than a female Gray-breasted.

But the characteristics suggestive of Gray-breasted turn out to be less clear-cut than they appear. Wing-chord measurements in Pyle et al. 1987 suggest that a very large male Tree Swallow and a very small female Purple Martin can differ by as little as seven millimeters in this measurement, which might work out to a difference in wingspan of a bit over an inch. (Wing chord is a useful dimension because it is not much affected by the position the bird or specimen is in when measured, or how hard the measurer is tugging!) Although establishing more difference than I felt was apparent in the field, this figure is close enough to undermine any certainty that the bird was too small to be a Purple Martin, especially when I reminded myself that I had only been able to compare birds in flight, and at a fair distance. The coloration of the underparts is a bit harder to explain away, but the carefully qualified descriptions (e.g., "lightly to heavily streaked" in Hilty and Brown 1986) of Purple Martins in some sources remind us that female-type individuals of this species show considerable variation. With this in mind, it seemed much less certain that an unusually small and pale Purple Martin, appearing in worn plumage, could not show a size and pattern like that of the bird at Crackatuxet.

The significance of the underparts was further clouded, paradoxically, by my familiarity with Purple Martins. Had anyone asked, I would have said I know this species well. While martins are rather scarce on the Vineyard, I viewed this species many times annually during some thirty years of living and birding on the mainland, seeing nesting martins on every summer trip I made (and there were a lot of them) to Plum Island. And I've generally encountered the species in migration, or elsewhere in

the United States, at least a few times a year, as well. But Purple Martin falls into a peculiar class of birds, the ones common enough and generally easy enough to identify so that I don't pay much attention to them, but sufficiently limited in their distribution so that I don't see them on a daily or even weekly basis. Typically, I take note of martins the first few times I see them each year — usually adult males, since these ordinarily precede females and immatures in the spring — and then pay little attention to them for the rest of the year, except perhaps to spend a few moments casually admiring their powerful flight. Unfortunately, birds of the year molt into their first-winter plumage on their wintering grounds, returning north in that plumage and wearing it until the next fall's molt (Bent 1942). Because of how my attention to this species intersected with its molt schedule, I realized, *I had probably never looked carefully at a female Purple Martin in first-winter plumage*, despite having seen this species literally hundreds of times. (I would feel worse if North American field guides did not also give short shrift to this plumage.) The gap in my knowledge could mean that the bird was not as unusual as I thought.

Having explained away the characteristics that seem to fit with Gray-breasted Martin, we also find that the bird showed some characteristics, *unmentioned by current North American field guides* because they don't help distinguish Purple Martins from our other swallows, that Mexican and Central and South American guides use for separating martin species. The pale collar, shared by Brown-chested and Purple but absent on Gray-chested, probably offers the most compelling plumage-based evidence that the bird was a Purple Martin, since the throat and upper breast pattern rules out Brown-chested. (Interestingly, the collar is obvious on the drawing of a female Purple Martin in my facsimile first edition of the 1934 Peterson guide, and in general this picture is a surprisingly good match for the bird at Crackatuxet: sometimes progress isn't progress!) The pale forehead (said by various sources to be present at least sometimes on Purple Martin in this plumage but absent on the other two species) may indeed have been there — this is a case in which viewing conditions rendered ambiguous an important field mark. But even if it were absent, one source (Hilty and Brown 1986) suggests that a dark forehead does not necessarily rule out immature female Purple. An observer relying solely on the standard North American field guides would have no reason even to look for these traits, which in this case turned out to be important for preventing oneself from leaping to a wild surmise.

What about the role of probability? Late March records of Purple Martins in Massachusetts are not common, but they are not really rare, either (Veit and Petersen 1993). Most early-season records occur on the southeast coast (but usually involve adult males). At the time we were observing this bird on Martha's Vineyard, a few martin reports had appeared on Internet rare-bird alerts from as far north as upstate New York, and the species was already pretty well established on the Atlantic coast as far north as Delaware Bay (not very far from the Vineyard, for a swallow, if a strong southwest wind is blowing). So the Vineyard bird fit fairly well with both historical knowledge of Purple Martin movements and with the pattern evident to that point during the 2000 season. In contrast, there are apparently only two United States records for Gray-breasted Martin, both from southern Texas and both from the


nineteenth century (ABA 1996). However, some populations of this species are known to be migratory, making vagrancy at least a theoretical possibility: the chances of finding this species in Massachusetts seemed vanishingly small — but not quite zero. No doubt Brown-chested Martin seemed like an outrageous long-shot in the Bay State on June 11, 1983 — but the next day, *voilà!* Probability matters, but when even the most unlikely event comes to pass, the probability of it occurring at least once rises sharply indeed.

But it is necessary to rule out the more common bird unambiguously before seriously considering rare alternatives. And however unusual Allan's bird looked, I was left with no unambiguous evidence that it was anything other than a Purple Martin, presumably an atypically small and pale immature female arriving, also atypically, before any adult males had shown up. Allan reasoned along the same lines, while for Gus Daniels, the bird was a Purple from the start. Still, if I had encountered this bird in some hypothetical location in which Gray-breasted was fairly likely and Purple only a pipe-dream, its small size and very pale underparts would probably have made me call it the former species with very little thought. So to be fastidious, wasn't the bird simply a martin sp.? I confess to just enough lingering doubt so that I will never again take a martin for granted.

This humbling episode underscored the way limited knowledge can bushwhack even a cautious observer (that's me). A birder relying on certain combinations of sources to identify this bird (say, the National Geographic guide, with its very dark female-type Purple Martins, in conjunction with Howell and Webb, with its emphasis on the pale forehead that was not apparent) could easily have been convinced that the bird was a Gray-breasted Martin, furnishing Martha's Vineyard (not to mention Allan Keith) with yet another mind-boggling ornithological discovery. It is only by actively considering the possibility that these two excellent sources might be inadequate that the error could be avoided. At the other extreme, relying mainly on probability, any New England observer could be excused for failing to note either the peculiarities that caught Allan's shrewd eye in the first place, or the traits (relevant mainly to birders in the tropics) that in the end turned this bird back into a humdrum Purple Martin.

In the absence of unambiguous photographs or a specimen, bird records committees are entirely correct in holding sight records (even ones involving multiple skilled observers) to a very high standard of proof. Ever more identification articles are published; book-length identification guides proliferate. But differences in opinion, the imprecision of verbal description or pictures, and differing selections of details mean that this wealth of information can confuse rather than clarify. How you identify a bird can depend in large measure on what sources you are looking at, as well as on where, when, and how you have experienced the possible species in the past.

This is not to say that rarities do not occur, or that birders should not look for them: if this bird *had* been a Gray-breasted Martin, you would be reading a very different article! But before jumping to conclusions, it is useful to consider variation within the most common species being considered, which may exceed what field

guides lead one to expect. It is necessary to assess the gaps in one's own experience with the species under consideration: just because a bird is not what you are used to seeing doesn't mean it isn't perfectly normal. And it is important to remember that regional or individual variation, or even just artistic style, can result in misleading or confusing information even in sources that are considered to be authoritative. Moreover, any identification guide discusses only a selection of the characteristics of a species. Finally, it is helpful to recall that species is a concept that has biological validity: most of the time, different species really do look different in the field, because they are different organisms, and if you feel like you are trying too hard — well, you probably are. It is a sound birder's adage that an atypical member of a common species — the uncommon common thing — is far more often encountered than a typical member of a rare species. If you stray very far from that maxim, it is surprisingly easy to find yourself defending an exciting identification that is utterly wrong. 

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