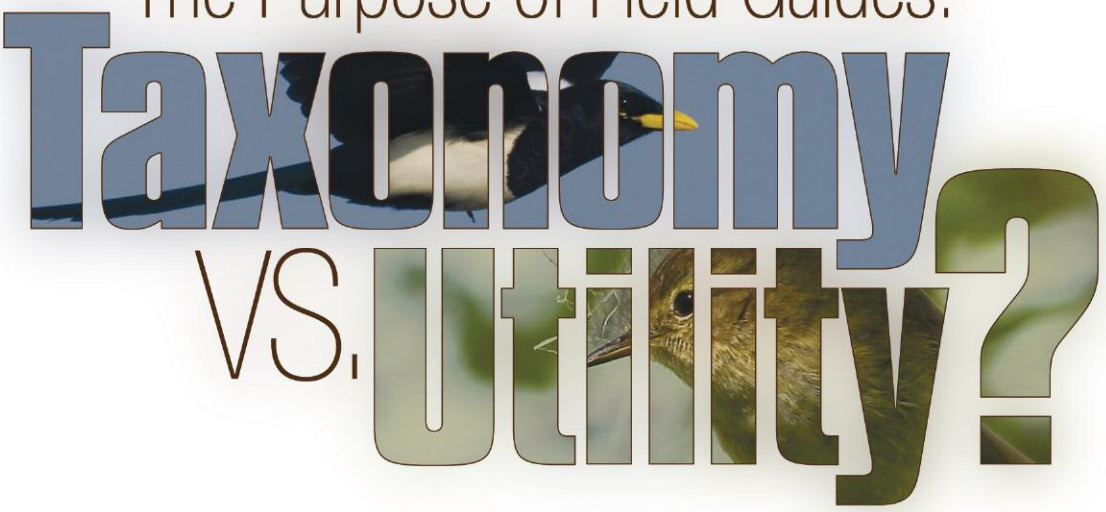
The Purpose of Field Guides: Taxonomy vs. Utility?



Whenever you started birding, you had your favorite field guide, and the way it organized species was the sequence you learned. After a while you could open the book and simply flip to the species you wanted. But if you've been birding for a few years, or just a year or two, you'll have found that newer guides—or even newer editions of "your" field guide—use different sequences, which can be frustrating. The time you've spent learning where to find things has been lost.

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A common trend has been for field guides to follow current taxonomic sequence. Grouping birds in some other way—by color, say, or by habitat—hasn't really worked. So the default of taxonomy has seemed like as good an idea as any. Yet perhaps only one North American field guide has ever strictly followed taxonomic sequence. Do you know which one? Not the National Geographic guide, but, rather, the early Peterson guides. (Our comments here refer to the famous third edition, published in 1947). Well, not quite. Peterson's *text* followed the taxonomic sequence of the day, but his *plates* didn't. There weren't many birders back then, and there wasn't economic justification for plates opposite the text. The plates of the first Peterson guides were islands of pictures scattered in an ocean of text. One plate combined shearwaters and jaegers, and another grouped "ground birds of open country," including Snow Bunting, Lark Bunting, Horned Lark, Northern Wheatear, pipits, and longspurs. These arrangements make sense because those are somewhat similar birds you could see together in the same habitat.

With the advent of facing plates and text, guides have put fewer species on a plate, and every author has moved this species or that group to conform to current taxonomic sequence. But what is taxonomic sequence, anyway? Do we follow the conservative Amer-

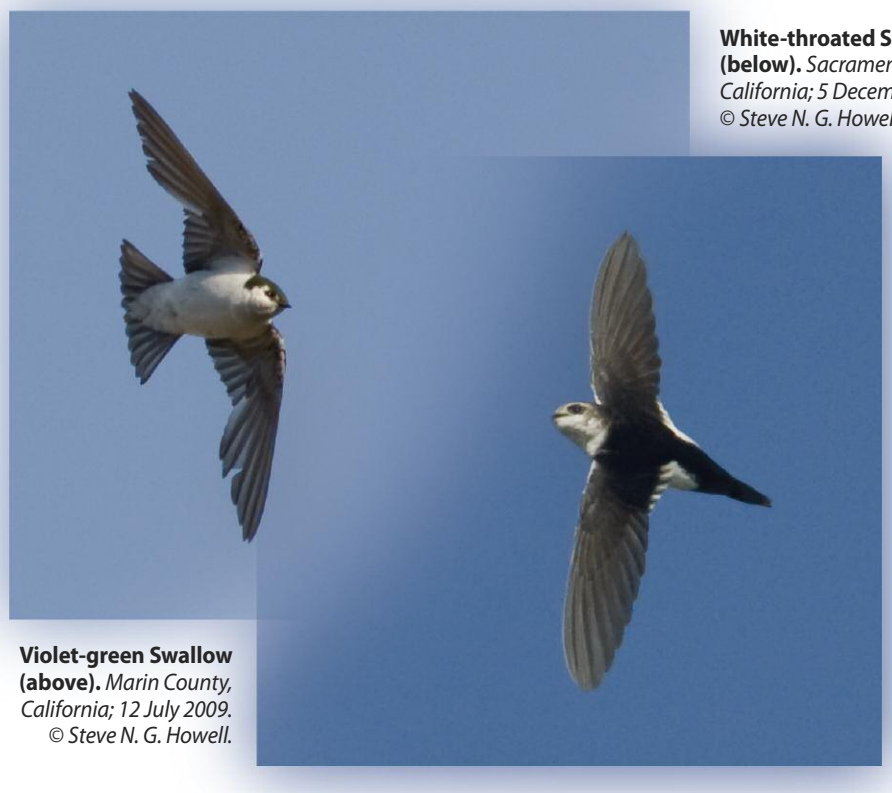
ican Ornithologists' Union (AOU) sequence or the radical Sibley and Monroe (S&M) sequence? Or some hybrid of the two? Some field guides have adopted the S&M taxonomy, such as those for Southeast Asia and South Africa, and they have been widely criticized for being "impossible" to use. Yet the AOU is slowly adopting some of the "radical" taxonomy of S&M and their spinoffs. How long will it be before the AOU sequence runs from chickens and ducks straight into woodpeckers? (Yes, that's what field guides following S&M do.) With the recent AOU move of flamingos next to grebes, every North American field guide is already outdated in terms of taxonomy.

Basically, taxonomy aims to reflect the evolutionary relationships among birds, which simply cannot be written in a linear sequence, or list. Field guides have a different purpose: to help you identify birds in the field. Knowledge of taxonomy can certainly be helpful in field identification, but sometimes it isn't. For example, as Jon Winter recently reminded us (*Birding*, May 2009, pp. 40–43), California's first Eurasian Skylark was misidentified by the top birders of the day as a Smith's Longspur. In present AOU taxonomy, larks come between ravens and swallows—neither of which would seem to pose identification pitfalls for somebody confronted with a lark. Using the principles of the old Peterson guide, however, larks and longspurs would be together on a plate with pipits,

Although grouped in the order Charadriiformes, alcids and jaegers don't really look much alike in the field. In the scheme outlined in this article, the two families are placed, respectively, with swimming waterbirds (such as loons and grebes) and flying waterbirds (such as gulls).

Juvenile **Pigeon Guillemot.** *Monterey County, California; 23 September 2007. © Steve N. G. Howell.*

Second-summer **Pomarine Jaeger.** *Dare County, North Carolina; 22 May 2007. © Steve N. G. Howell.*



White-throated Swift (below). *Sacramento County, California; 5 December 2008. © Steve N. G. Howell.*

Violet-green Swallow (above). *Marin County, California; 12 July 2009. © Steve N. G. Howell.*

Swifts and swallows are aerial landbirds often seen together. In the sequence recommended in this article, they are grouped together, as has been done in several field guides.

which is a realistic and practical grouping of birds.

Some people argue that it is useful to learn and understand taxonomy, that it is "good for birders" to learn taxonomic sequence. We don't disagree in principle, but there are other sources for this information. It's also useful as a birder to learn about nests and eggs, as well as conservation status, but this information is available elsewhere, not in your field guide. Moreover, if taxonomy is constantly changing, there is little value to this argument. And if taxonomists don't understand what is going on and continually argue about it, then why should birders get caught in the middle? *Taxonomic lists and field guides are two different things*.

We're not proposing simply to dismiss taxonomy and replace it with ornithological anarchy, but we contend that constantly changing arrangements of higher-level taxonomic categories are not useful for birders. Conversely, the lower-level taxonomic categories of family, genus, species, and subspecies are the keystones of birding. Thus, we readily acknowledge that *within* a family of birds, some knowledge of taxonomy can be really helpful, as when learning the different genera of sparrows or warblers. For example, one of the great strengths of the *Sibley Guide* is its family introductions, which group birds by genus.

But rather than getting lost in the ever-fluid higher-level taxonomic landscape, why not put families in a user-friendly field guide sequence that makes sense—*and leave it that way*? Our cry in the wilderness seems especially relevant in this era of rapidly changing taxonomy and proliferating new field guides. These guides fall into two main camps: those that try to keep up with the constant changes in taxonomy, and those that arrange species in ways that may be more helpful in terms of field identification. Leading the way in the latter group was the 1980 edition of the Peterson field guide, which arranged species into eight main groups, based on a synthesis of habitat, structure, behavior, and taxonomy. Recent field guides that have employed similar approaches include Kenn Kaufman's *Focus Guide* and Ned Brinkley's photographic guide. These three books acknowledge the challenges birders have in the field, and arrange species accordingly. In short, they were designed to be field-friendly. Field guides that strictly follow taxonomy are of less practical use to birders than ones that don't.

So what's the answer? Well, because we all see birds differently, there is no perfect answer. But how about this? What if authors of North American field guides agreed upon a field-friendly sequence? Hey, even put swifts next to swallows—they look similar. Why not put owls and nightjars next to each other? And so on. Then, stick to this sequence—*and*

don't change it. After a few years, everybody would be able to use every field guide. Communication would be enhanced. Each new guide, and each new edition, could have an appendix giving the latest taxonomic list and explaining the value of taxonomy and the latest changes, but *the order of the birds in the field guide would stay the same*. Ten years from now, taxonomists may agree that loons are closely related to frigatebirds; regardless, loons look more like cormorants, so they will remain next to cormorants in your field guide.

It is naive to think that all field guide authors will use the same sequence. Different design constraints, for example, will always be a concern. And some may always cling to "official" taxonomic sequence regardless of how it keeps changing. Nonetheless, we believe that field guides are written for the user, and after many decades of collective years talking to thousands of users, it is clear to us that constantly changing taxonomy is not a helpful model by which to arrange birds in a field guide.

If there were agreement on a field-friendly and unchanging sequence of families among even a few field guide authors, and among just a few books, we would be off to a great start. Of course, even families change, and surely some will be split up in future. *Piranga* tanagers recently "became" cardinalids, for example. Will longspurs someday "become" finches? Whither the Yellow-breasted Chat? For now, though, an agreement based upon the sequence of families seems as good as we might hope for. How species

In conventional AOU taxonomy, corvids fall between vireos and swallows. But how often do you hear somebody ask, "Hey, is that a Yellow-billed Magpie or a Warbling Vireo?" In the proposed scheme, vireos would be returned to their "logical" place preceding warblers. As for corvids, within the order Passeriformes there's no obvious place to put them in terms of identification contenders. However, one feature of corvids is that they're pretty big, and size is an easy thing to appreciate in identification. Hence they are placed here with "miscellaneous larger landbirds."

Yellow-billed Magpie. *Solano County, California; 6 December 2008. © Steve N. G. Howell.*

Warbling Vireo. *Marin County, California; 18 September 2008. © Steve N. G. Howell.*

Old World warblers are believed to be more closely related to thrushes than to New World wood-warblers. But both families are called warblers because of obvious similarities. Were you to come across the small drab bird depicted at bottom right, you might well think you'd found a "warbler." And you'd be right—you'd also have found a new species for the ABA Area!

are presented within a family will depend on factors such as book layout and the goals of individual authors. Arguing for a standardized species sequence is beyond the scope of our manifesto; within families, a taxonomic approach will likely be the default option, arranging species by genus as noted above.

The foregoing discussion started among Wood, Sullivan, O'Brien, Lewington, Howell, and Robert Kirk as part of their work on a new handbook (and field guide) to North American birds, to be published by Princeton University Press. This Princeton guide is some years away from being published, but it was believed important to address the issue of species sequence early in the game. After three days of close confinement, arguing about sequences, the principals agreed upon what seemed to be a logical, field-friendly order only to find this "new" sequence wasn't so different from that in Peterson's 1980 guide or from the Kaufman and Brinkley sequences. Convergent evolution in field guide sequence—now there's a thought. But if so many people have independently come up with something similar, that suggests there may be value to it.

Subsequent discussions with Jonathan Alderfer, Brinkley, Richard Crossley, Ted Floyd, Kaufman, and David Sibley allowed refinement of the sequence. Also, some of the material presented here is excerpted or modified from an online interview with Howell at Saraiya Ruano's blog for young birders <http://tiny.cc/sKvqs>, and we thank the ABA's young birders for being on the cutting edge of topics that affect us all.

With the view, then, that a shared and unchanging overall sequence to field guides would greatly help the birding public, our proposed sequence of families and other groups is shown in the accompanying table.

Orange-crowned Warbler. *San Blas, Nayarit; 11 January 2008. © Steve N. G. Howell.*

Common Chiffchaff (*Phylloscopus collybita*). *Gwent, South Wales, United Kingdom; 2 May 2009. © Steve N. G. Howell.*

Basically, it is waterbirds followed by landbirds, with eight main groupings (names for these groupings are simply handles, not perfect and pedantic labels): swimming waterbirds, flying waterbirds, walking (wading) waterbirds, upland gamebirds, raptors, miscellaneous larger landbirds, aerial landbirds, and songbirds. In some cases we have flipped sequences around within presently recognized families. For example, it seems more helpful to have orioles next to "tanagers," and longspurs next to larks.

At the end of the day we can't please everyone, and we note that this sequence is a compromise of numerous different views. Each of us would prefer to do (and is obviously free to do) something a little differently. Being an individual is a great thing, but the desire for a standardized field-guide sequence that isn't constantly in flux has overridden our individual preferences.

Table. Proposed field-friendly sequence of families and other distinctive taxa or groups for a North American field guide. Families recognized here generally follow the *Handbook of the Birds of the World* and thus differ in some ways from AOU taxonomy (such as with upland gamebirds and gnatcatchers). Families of accidental occurrence in North America are generally not treated in field guides because they are unlikely to be seen by 99.9% of users. Thus, thick-knees, pratincoles, and hoopoes are not listed here.

WATERBIRDS

SWIMMING

1. Waterfowl (Swans, Geese, Ducks)
2. Cormorants
3. Anhinga
4. Loons
5. Grebes
6. Alcids

FLYING

7. Shearwaters and Petrels
8. Albatrosses
9. Storm-Petrels
10. Tropicbirds
11. Frigatebirds
12. Gannets and Boobies
13. Pelicans
14. Skuas and Jaegers
15. Gulls
16. Black Skimmer
17. Terns

WALKING

18. Plovers
19. Oystercatchers
20. Stilts and Avocets
21. Sandpipers
22. Herons
23. Flamingos
24. Spoonbill and Ibises
25. Limpkin
26. Cranes
27. Wood Stork
28. Rails
29. Northern Jacana

LANDBIRDS

UPLAND GAMEBIRDS

30. Grouse
31. Quail
32. Pheasants and Partridges
33. Wild Turkey
34. Plain Chachalaca

RAPTORS

35. Vultures
36. Hawks
37. Falcons
38. Typical Owls and Barn Owl

MISCELLANEOUS LARGER LANDBIRDS

39. Nightjars
40. Pigeons
41. Cuckoos
42. Parrots
43. Trogons
44. Kingfishers
45. Woodpeckers
46. Corvids (Jays, Crows)

AERIAL LANDBIRDS

47. Hummingbirds
48. Swifts
49. Swallows

SONGBIRDS

50. Tyrant-Flycatchers
51. Old World Flycatchers
52. Shrikes
53. Mimids
54. Thrushes
55. Siberian Accentor
56. American Dipper
57. Waxwings
58. Phainopepla
59. Parids
60. Nuthatches
61. Brown Creeper
62. Verdin
63. Bushtit
64. Wrentit
65. Wrens
66. Gnatcatchers
67. Kinglets
68. Vireos
69. Old World Warblers
70. Wood-Warblers
71. Olive Warbler
72. Bananaquit
73. Pipits and Wagtails
74. Larks
75. Longspurs
76. Sparrows
77. Old World Sparrows
78. White-collared Seedeater
79. Weavers
80. Finches
81. Cardinalids
82. "Tanagers"
83. Icterids (Orioles, Blackbirds)
84. Starlings and Mynas
85. Bulbuls