## Ask Kenn!

## Ask Kenn Kaufman: Falcons, Hawks, Owls, Vultures—What Exactly Is a Raptor?



By Kenn Kaufman

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Who's Kenn? Simply put, Kenn is a national treasure. A renowned birder, author, and conservationist, Kenn Kaufman has spent his life dedicated to observing birds, reading about birds, writing about birds, and sharing the world of birds with others. With all that birdy knowledge in his brain, he also acts as the field editor for *Audubon* magazine. So, whenever we have a bird question stumping us around the office, we just ask Kenn. And now you can, too! If you have a bird or birding question you'd like Kenn to answer, leave them in the comments below or on Facebook. Maybe next month you'll get the kind of thorough, thoughtful, and even humorous response from Kenn we've grown so fond of over the years. —*The Editors* 

Q: I recently learned that falcons and hawks aren't close relatives, but they are both considered raptors. That made me wonder: What exactly makes a bird a raptor? And why are vultures, who scavenge instead of hunting, also considered raptors?

**KK:** What is a raptor? That question has proven surprisingly hard to answer. Even though many people and organizations all over the world are focused on raptor research and rehabilitation, there has been no universal agreement on exactly which birds should be included under that term.

It's important to start by understanding that this is not strictly a category of close relatives. The word "raptor" is based on Latin words referring to seizing or plundering, so definitions have focused on the grasping, raptorial feet of hawks or owls as a defining characteristic. We have long understood that owls are not related to hawks, but they're usually considered to be raptors anyway because they have such clearly predatory lifestyles. Presumably the same would apply to falcons. We now know that these supreme aerial hunters are related more closely to parrots than to hawks—some people have even dubbed them "murder parrots"—but I doubt anyone would seriously say falcons don't count as raptors.

Now, this line of thinking leaves the vultures out in the cold, since these scavengers have relatively weak feet, not suited to grasping prey. At the same time, it would be awkward to exclude them, because Old World vultures belong to the same family as the typical hawks and eagles. Further complicating things, New World vultures, even though they're very similar, are classified in a different family, and currently even placed in a different order. It would seem odd to say that some vultures are raptors and others are not.

And what about other predatory birds? Some people have suggested that shrikes should be included, since these songbirds have hooked bills and they regularly prey on rodents and small birds. But if we stop to think about it, a robin killing and eating an earthworm is a predator, too, isn't it? Just with smaller prey. So is a chickadee eating a caterpillar or a gnatcatcher catching a gnat. If we expand the list of raptors to take those in, the category would include most birds of the world and the term would lose any useful meaning.

So, what is a raptor? That's a matter of opinion. Fortunately, I don't have to just give my own opinion, because some top authorities have just weighed in on the question.

In the December 2019 issue of *The Journal of Raptor Research*, eight experts proposed a new definition. Christopher J.W. McClure and his colleagues looked at recent advances in the high-level classification of birds to find a grouping that uses actual relationships. Detailed DNA studies published since 2008 have suggested that most land bird groups evolved from ancient common ancestors that were predatory in nature. With that as a starting point, McClure and coauthors define raptors as "all species within orders that evolved from a raptorial land bird lineage and in which most species maintained their raptorial lifestyle as derived from their common ancestor."



Peregrine Falcons. Photo: Muhammad Faizan/Audubon Photography Awards

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In practical terms, the definition would exclude most orders of birds and would apply only to these orders: Accipitriformes (hawks, eagles, etc.), Strigiformes (owls), Cathartiformes (New World vultures), Falconiformes (falcons and caracaras), and Cariamiformes (seriemas).

The latter group may be unfamiliar to many readers. Seriemas are large, long-legged birds that run on the ground in open country in South America, preying on reptiles, rodents, small birds, and large insects. Superficially they might suggest the Secretary Bird, a ground-dwelling, long-legged predator from Africa, which occupies its own family within the Accipitriformes. Seriemas and the Secretary Bird are not related—except for the fact that, under this new definition, both are regarded as raptors.

Since the definition was just published days ago, I don't know if it will gain universal acceptance. But it makes a lot of sense to me and works well for the time being.