

From the Editor

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From the Editor

SUBSPECIES HAVE BEEN a focus of much of my research, albeit from an ecological rather than a taxonomic perspective. I have never much troubled myself about whether my species of interest was a good or bad subspecies (I try not to judge!); rather, the point was that it was thought to be different from other members of its species. My interest was in why was this group of animals was different, how they used their environment compared with other groups of the species, and what these differences (if found) meant to the viability of the group under changing conditions. Because certain subspecies or populations of species are rare, there is a (legislated and regulated) overlap between being very rare and the availability of research funding. I have studied and continue to study many subspecies, both avian and mammalian. Studying what are usually small and isolated groups of animals is a challenge, regardless of their official scientific designation. Ecologists will continue to focus on the rare and isolated, regardless of what we are required to call them, because of the wealth of knowledge we gain from such a research focus.

Earlier in my career, I considered the question of subspecies and hybridization. What I gained from my brief, rather unsophisticated exercises was a knowledge of and keen respect for the work of earlier naturalists—without all of our fancy statistics and genetic analyses—on identifying differences and patterns in nature. Today, many scientists belittle the hands-on, “measure it with a caliper and color chart” approach to taxonomy and the descriptive nature of ecological investigations. But if you read the writings of these earlier workers, you will find a rich knowledge of nature and of the way things seemed to work. The history of the study of subspecies that is contained in this volume is tightly associated with the history of how we came to study and better understand birds.

In Chapter 1, you will read about the history of the designation of subspecies, changes in methods of identification and analysis, the Endangered Species Act in relation to subspecies and conservation, and also several case studies that identify subspecies. The authors who have contributed to this monograph are passionate about the issue of subspecific designation, and this passion comes through in all the papers (I prefer to call people “passionate” rather than argumentative—or related descriptive terms—when they strongly disagree with most of my suggested changes to their text). Several of the papers are more opinion than fact, and the authors were somewhat less than willing to consider any changes to their writing. Such papers would perhaps not have passed muster for publication in *The Auk*. But I thought that including them was appropriate as part of the overall volume because my philosophy is that it is the volume, and not individual papers, that tell this story about subspecies.

It was interesting to me that many authors focused on new and better statistical analyses to help decipher distinct segments of a species. Such a focus on statistics is the same issue that has confronted ecologists for some time, perhaps best stated by Douglas Johnson in his comments on how insignificant statistical significance can be. In ecology, we worry so much about a *P* value that we forget about biological relevance; that is, how different does something need to be to be ecologically meaningful? Does a male bird need to forage at a rate that is 10% or 20% (or another percent) different from a female for this to be related in an ecologically meaningful way to their survival and fitness? Likewise, does one group of birds need to be 10% or 20% different in some morphological characteristic to warrant a trinomial? Again, as an ecologist, I care most about what these differences mean for population viability; yet I need to know whether the differences in morphology are, indeed, biologically real. Thus, I ultimately need to know that we have the taxonomy correct. Although many have criticized the “75% rule” (you will read plenty about this herein), at least it is an attempt to put biological relevance into the discussion of subspecific designation.

Thus, ecologists really would like for those who work on taxonomy to get it correct, although I imagine what is correct will always (and I mean always) be a subject of debate. But it seems to me that ecologists and taxonomists could actually be working more closely together on specific groups to see whether there is, indeed, a relationship between what is different, say, morphologically, and how that relates to various population-level metrics. If, for example, we find that morphological differences do not appear to equate to differences in survival, then are those longer wings anything

more than a result of chance? Perhaps the way to solve the subspecies dilemma is to look closely at what the differences in size, shape, and color mean for survival and fitness.

I am confident that *Ornithological Monographs No. 67* will challenge you to think about the designation of groups of animals. The point is not whether subspecies exist or whether you agree with the conclusions of individual papers. Rather, the point is that there is much to be learned in examining morphological and ecological differences in nature—and the links between them. Enjoy.

Michael L. Morrison