was meticulously thorough and accompanied by thousands of precise drawings representing the morphological diversity of true flies found in the region. During my studies on Diptera, the MND became my bible and remains my favorite text on insects ever published. Although publication of the MND was a monumental task, its value has inspired dipterists (and likely researchers of other taxonomic groups) to summarize their collective knowledge into regional handbooks that are technical, but still accessible to beginners. In Diptera, what followed were volumes on the Palearctic Diptera (MPD; 1997–2000) and more recently on the fauna of Central America (MCAD; 2009–2010).

The first two volumes of the Manual of Afrotopical Diptera (referred to as the MAD hereafter) are the latest to be published, and it is certainly an exciting work to have in front of me. (I’ll have to wait for the third and fourth volumes to have the complete manual.) Volume 1 includes overarching themes in Diptera, with special focus on the Afrotopical region, which itself is defined for those attempting to orient themselves biogeographically. The volume provides a detailed account of noteworthy African natural history initiatives and expeditions, along with the major players in dipterological research—from the father of modern taxonomy (the big “L.”, Linnaeus) to living dipterists whose discoveries and collegiality I have experienced firsthand. Especially interesting are the profiles of those who have resided in or originate from Africa, and who have dedicated their lives to African dipterology. A section describing the major collections housing Diptera in Africa is valuable for those looking to work on material from the region. A chapter on collecting and specimen preparation techniques will be handy for beginners, but also contains some valuable tools for even seasoned collectors (although any discussion of best collecting and prep techniques can be expected to stir arguments of individual preference).

Flies are extremely diverse, both in number of species and anatomical structure. Thus, prevailing theories on the evolution and phylogeny of Diptera are addressed in the volume, as is the current state of knowledge about the morphology of the group. Notably, the MAD gives updates to some anatomical concepts and, perhaps most dramatically, to the outdated wing venation terminology used in earlier manuals; these changes may require some time for workers in the group to adopt. Because flies have the potential to affect human lives in numerous ways, there are chapters on Africa’s crop and veterinary pests, forensically important Diptera, and phytosanitary issues and regulatory programs. The most notable chapter describes the medical significance of flies in Africa, since the Afrotopics is perhaps the most strongly affected of all regions when it comes to both disease-transmitting flies and those that cause myiasis (that is, infection with parasitic fly larvae) and other maladies. Finally, Africa’s unique fly biodiversity is discussed with special emphasis on Gondwanan fauna, along with the conservation status of some of the more rarely collected taxa.

In perhaps the most important section for using the subsequent volumes, Volume 1 also contains adult and larval keys to the families of Diptera. While previous manuals were able to distill the most important characters for identification, this manual adds to that by including both color photographs and line drawings with each couplet in the adult key, largely eliminating the frustrating page-flipping often necessary to find figures of specific characters. The key in this book aims to be the most accessible of any of the manuals to date; I foresee it being a valuable tool, especially for training new taxonomists in Africa, where local expertise is greatly needed.

Volume 2 gets to the heart of the material, delving into synopses of each family found in the region, starting with the most plesiomorphic group (“Nematocera”) and working through the lower Brachycera and Empidoidea. Taxonomy is always changing based on new hypotheses, so
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the thing that really resonated between us was a shared love of beetles.

Sadly, George Ball passed away a week before I sat down to write these words, and there are entomologists all over the world who are feeling the loss. George was a ground beetle taxonomist, and we now know that tiger beetles form a subgroup within the ground beetle family Carabidae. George was also a department head, an editor; a president for a number of societies, an ESA Fellow, and a former Marine. Believe me, when you learn entomology from a Marine, you really learn entomology (or at least you feel like it). He became a professor in 1954, four years before I was born, and lived to the age of 92. For further insights into George, I can recommend Marlin Rice’s interview, published as part of the “Legends” series in American Entomologist, or David Maddison’s recent blog post about how George mentored him in the early days, as well.

That said, The Cicindelidae of Canada inspired me, along with many of my teenage friends, to explore the sand dunes, outcrops, and mud flats of western Canada in search of rare Cicindela. We found some, too, including species that were previously unknown for Alberta. It was natural, then, that I came to study sand dune tiger beetles for my M.Sc., under the supervision of John Spence, but with George Ball on my supervisory committee, and as my acting supervisor when John was away on sabbatical. In those days, master’s programs at my university typically took four years or more, in part because tuition was low, and there was no urgency to rush students to completion before their money ran out. No such money existed, coming from the university itself, and if you had scholarships or generous parents, you simply took as long as you needed to take.

I enjoyed those days, and for a tiger beetle researcher, the ’80s and ’90s were heady days indeed. David Pearson, at Arizona State University, had become a central figure in tiger beetle biology, and he was working hard on synthesizing our understanding of the group and positioning the “tigers” as a model group for various types of work, including biodiversity and ecology. As a result, it seemed that every research idea I came up with (having to do with community structure, thermoregulation, the functions of coloration, and the like) was already under study by Pearson, or others caught up in the momentum of tiger beetle science. Those of you who work in “crowded” areas of entomology will not find this unusual, but because the initial appeal of tiger beetles was, admittedly for me, their obscurity, it was a strange situation indeed. On the other hand, it gave me a sense that I was participating in something important and timely.

Since those days, which I think of now as Neo-Cicindeline Synthesis, things have stabilized in a somewhat different configuration. Tiger beetles have largely failed to become popular indicator groups or model systems in ecology, but they are frequently of interest to conservationists, thanks to their tendency to evolve distinct species or subspecies in small, isolated patches of eroding or otherwise plant-incompatible habitats. Their conservation notoriety gives them a very modern feel. For example, at the recent ESA/ESC meeting in Vancouver, a group of us met excitedly about a joint project we are pursuing on the conservation genetics of a prominent western species of tiger beetle. On the other hand, the non-refereed specialist journal Cicindela, in which most tiger beetle specialists have published at least once, remains stubbornly analog and reassuringly anachronistic (and, I might add, full of useful, interesting material that would have difficulty finding a place in other journals).

In the late 1990s, I devoted one episode of my former television show to the subject of tiger beetles and wrote my own book about the tiger beetles of Alberta. That book was the reason I was originally invited to write “Terminal Segment.” Former editor Gene Kritsky is enamored with tiger beetles himself, and after reading my book, he invited me to write for American Entomologist. The title “Terminal Segment” was his idea as well. Gene’s wife, Jesse Smith, also loves tiger beetles and has long served as an editorial assistant for this journal, when she’s not making insect-themed jewelry. I proudly wear a Cicindela belt buckle that she cast for me in her Silverspot Studio workshop (where she also made one for George Ball).

The ESA played another exciting role in my tiger beetle experience when I was at the annual meeting a few years back. (It was 2010, I believe.) Alan Harvey, an animal behavior specialist at Georgia Southern University, came up to me in the exhibit hall and said something like,