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In Memorium: Charles G. Sibley*

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On April 12 this year, Dr. Charles Sibley passed away in California. Although a Nebraskan by neither birth nor occupation, his work on hybrid zones among various passerines in the Platte Valley of central Nebraska during the 1950s became a model for modern studies in field approaches to both evolutionary biology and species-level taxonomy. His study also identified for the first time the Platte Valley as a major evolutionary "suture zone" between eastern and western avifaunas. When I arrived at Cornell in 1955, all of Dr. Sibley's graduate students were doing their fieldwork in Nebraska, collecting specimens of the various species-pairs or quasi-species (*Colaptes*, *Pheucticus*, *Passerina*, *Pipilo*, *Icterus*) hybridizing there. The results of these studies had a major impact on the thinking of American ornithologists regarding species limits in groups such as the towhees, flickers, and orioles.

Other more complete obituaries have appeared elsewhere (e.g., *Ibis* 140:697–99, 1998) and will certainly continue to appear; the following account concentrates on my personal recollections and assessments. When I arrived in Ithaca in 1956, Dr. Sibley had himself not been at Cornell long, having moved there in 1953 from San Jose State College. I wanted to

do graduate work with him more than anyone else in the country, especially because he indicated an interest in supporting my ideas for a study on the comparative behavior of ducks as a taxonomic tool. Dr. Sibley proved to be the most intellectually stimulating teacher I had ever known, and also one of the most demanding and, at times, tyrannical. To be sure, his famous temper made all his students quake in his presence and regard him as a godlike figure to be disobeyed only at one's utter peril. Yet he could also be charmingly funny; he was also endlessly interesting.

Dr. Sibley replaced the venerable A. A. Allen at Cornell, a genial man who for more than four decades had taught his life-history approach towards ornithology to legions of young students. Dr. Sibley, on the other hand, took it upon himself to "sweep out the cobwebs" left over from Dr. Allen's long reign, and many unfortunate students perished academically during that tumultuous transition phase. Despite this turmoil, he attracted overflow crowds to his introductory ornithology classes, captivating them with his great lecturing ability and complete command of his subject.

My three years there were spent on a full fellowship, so I never had to act as one of Dr. Sibley's often-suffering graduate assistants; however, I did work for him as a lab technician during the summer of 1958. That summer was a critical one in Dr. Sibley's important transformation from species-level taxonomy using whole specimen data, to a much more molecular taxonomic approach. He had obtained a one-year N.S.F. Grant for a pilot-study on the feasibility of adopting blood proteins as a taxonomic tool, using paper electrophoresis. He assigned me the job of obtaining a variety of birds, mostly different breeds of chickens and turkeys from the poultry department,

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plus pheasants, quails, and ducks from the state-operated game farm near Ithaca. I dutifully shuttled these birds back and forth, obtaining blood samples and running their serum analyses. These efforts, however, produced extremely disheartening results, owing to great individual variability in the serum profiles.

By chance I had read a paper written by Robert McCabe and H. F. Duetsch, and published in the *Wilson Bulletin* about a decade previously. This study indicated that significant interspecies differences exist in the electrophoretic profiles of egg-white proteins from various gamebirds, and I decided to try confirm and extend their findings. I had to do this experiment surreptitiously, however, since I would be dealt with harshly and my career fatally, should Dr. Sibley discover my departure from his strict lab protocol. Near the summer's end, Dr. Sibley proclaimed our efforts on blood proteins a failure and announced he would not ask for more N.S.F. grant money to continue the study. Gathering my courage, I then showed him the results of the egg-white samples I had done. Within minutes he grasped their potential and immediately laid plans for a new grant to undertake a massive survey of North American birds.

Soon after that, I began to feel like a sorcerer's apprentice, for the event marked the start of his wholesale egg-collecting activities first in the U.S. and eventually worldwide. His subsequent work was the first to exploit molecular biology for the higher-level taxonomy of the world's birds, and led directly to his later studies on DNA-DNA hybridization, which shook the avian taxonomic tree to its very roots.

Dr. Sibley left Cornell in 1965 for Yale University, where he began the DNA work that made him world famous. He retired

from there in 1986, moving to California to complete work on two major books, one describing the phylogeny and classification of the birds of the world, and the other providing an exhaustive survey of the distribution and taxonomy of all the world's bird species. These works are the most important monographs ever done on the subject.

Even toward the end of his life when we spoke to each other on the phone, I was unable to address him as "Charles." He will always simply be "Dr. Sibley," a person who totally changed my life, my interests, and my career goals.