THE AMATEUR: FINDING A NICHE IN ORNITHOLOGY

by Harold F. Mayfield

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While amateurs developed astronomy, physics, and chemistry, those sciences have today moved beyond the reach of individuals working with their own resources. Many sciences require elaborate apparatus, staff assistance, and institutional or government support.

In ornithology, however, the amateur is still a significant figure. Perhaps no other branch of science owes so much to the amateur, not only in current contributions of data and understanding but also in producing professionals of the future. Can we think of another field where we could make a similar statement? In other fields, most eminent individuals did not meet the subjects of their ultimate specialization until they were launched in their professional careers. Even in biology, it would be hard to find a scientist who traces his origins to an early love of fruit flies or mice.

Throughout this paper, I use the term amateur to mean someone who studies birds as a part-time avocation while carrying on a full-time occupation in another field. Instead of speculating on the roles the amateur might play in ornithology, I will focus on amateurs whom I have known personally and who have been in the forefront of ornithology. Another author would have picked other individuals. The possible examples are almost innumerable.

My first category of amateurs is the keeper of the records. These are the people who chronicle bird life in each locality and thus provide records of changes over the decades. They are the monitors of populations, and without them, historians, ecologists, public health officials, and other scientists would be groping to appraise long-term trends in our environment.

For my prime example, I take my friend Louis W. Campbell. For more than sixty years, he has presided as the acknowledged authority on birds of the Toledo, Ohio region. Through his own observations and meticulous screenings of the reports of others, he built a complete account of birds in this locality. His more important observations have been recorded in national journals and items of local interest were published in newspapers, particularly the former *Toledo Times*, where he wrote an outdoor column for thirty-three years. The public also knows Louis from hundreds of lectures. His bird records are still being summarized annually in the *Toledo Naturalists' Association Yearbook*, and comprehensive accounts have appeared in his 1940 monograph, *Birds of Lucas County*. In 1968, Louis authored *Birds of the Toledo Area*. Both accounts are models of completeness and accuracy.

Louis Campbell's grasp of the local scene embraces not only its birds, but also its history, geology, botany, and zoology. Needless to say, he has been an inspiration to generations of young naturalists. Yet, at no time was Louis

employed as a naturalist or biologist. He worked for fifty years until retirement as transportation engineer for the local transit company.

My second category of amateurs is the life history specialist. The focus and pace of modern biology has pushed life history studies into the background among professional ornithologists. The comprehensive study of a single species is slow, often unexciting, and not a quick way to fame. It is usually beyond the time allotted to the graduate student, and it does not always yield the profound insights esteemed in professional circles. Testing narrow hypotheses is quicker.

Nonetheless, some individuals are well known for their life history studies. We must mention Margaret Morse Nice and Arthur Clevelend Bent. Neither individual, however, exactly fits the model I am presenting. Nice, the library scholar and Song Sparrow authority, could hardly be called a part-time ornithologist. She herself bridled at being labeled a housewife. While she did not ever provide the family livelihood, she did arrange her personal affairs in order to spend countless hours and days on her field studies. Bent, on the other hand, had been a businessman, but during the decades he devoted to the *Life Histories of North American Birds*, he was financially secure and gave all his time to this task.

For my model of the life history specialist, I will single out Lawrence H. Walkinshaw, a full-time dentist with a flourishing practice in Battle Creek, Michigan. I first met him in his office and the way I tell it, he came out to talk birds with me leaving a patient with a mouthful of instruments. Of course, he denies this. He had a lifelong passion for the living bird. He was a genius at finding nests and he was tireless in the field. His notes were models of thoroughness, and he published his findings scrupulously. He did much of his field work before other people were up in the morning, and much of his writing while other people were in bed at night.

Larry concentrated on birds near at hand. Perhaps his greatest study was a definitive work on the Field Sparrow centered on an abandoned field near his home. Within his county, he found nesting Sandhill Cranes, and his decades of work with them led to four books on this species. He was living at the very northern limit of the range of the Prothonotary Warbler, but he was still able to conduct a major study of this species. On weekends and vacations, Larry studied the Kirtland's Warbler, which nested only a few hours' drive away. His nest records for Kirtland's Warbler spanned more than fifty years and provided material for two books on this rare bird.

Another category in which amateurs continue to make their mark is editing, or perhaps I should say nurturing, regional journals. If you glance at any collection of state bird journals, you will find that nearly all are produced by dedicated amateurs. The contribution of amateurs to editing is not limited to the regional journals. No modern list should omit mention of George Hall, editor of the *Wilson Bulletin* for ten years. His adult life has been spent as professor of

chemistry at West Virginia University. He will also be remembered as the authority on the birds of that state and author of *West Virginia Birds*.

For my prime example of an editor, I single out Robert B. Janssen of Minneapolis. As editor of *The Loon* (formerly *The Flicker*), the journal of the Minnesota Ornithologists' Union, for thirty-two years, he is perhaps the senior ornithological editor in the U.S. From that post, he has provided leadership for a variety of activities, heading the state records committee and initiating a telephone hotline for spreading news of notable occurrences. This work made possible his 1987 *Birds in Minnesota*. Bob's lifetime fascination with birds has not prevented him from pursuing a successful career in business. He worked as a salesman and executive in a company manufacturing envelopes.

Few amateurs can travel to the ends of the earth in their studies, but many, especially those in large cities, have access to fine libraries. This brings me to my next category of amateurs, the library scholar. A sparkling example was the late A.W. Schorger of Madison, Wisconsin. Bill Schorger spent untold hours in late afternoons and evenings in the dusty shelves of the state historical society library, combing through old newspapers for eyewitness accounts of birds in pioneer days. A wary librarian once said to him, "I have moved more tons of paper for you than for any other person in the state of Wisconsin." Years of delving into newspaper archives formed the basis of his definitive works on the Passenger Pigeon and the Wild Turkey, long after both species had been extirpated from his region. Among his business associates, Bill was known as an executive in paper manufacturing and a distinguished paper chemist with many inventions to his credit.

A particularly valuable cohort of amateurs and professionals in ornithology consists of those who are competent in the physical sciences and mathematics, talents that are in short supply among biologists. A recent recipient of the Brewster Award for the most important recent contribution to the birds of the Western Hemisphere was Charles Sibley, a professional ornithologist, who brought physical chemistry to the study of the relationships between species.

Among amateurs, I think first of my friend, the late Frank W. Preston of Butler, Pennsylvania. He was a glass technologist and mathematician who approached every bird question from a novel, analytical angle, with conclusions that were always out of the ordinary. He was a problem solver, intrigued by statistical aspects of seemingly mundane subjects, such as the mathematical representation of egg shapes, the distribution of the heights of bird nests, and atmospheric phenomena aiding birds in long-distance flights. In his professional life, he established and directed a consulting firm doing research in glass technology and testing devices for the glass industry throughout the world.

Another distinguished member in this category is Crawford Greenewalt, chemical engineer and business executive, whose inventive use of high-speed photography led to new insight into the hummingbirds. He produced a beautiful

and scholarly book on hummingbirds that is a collector's item. His analysis of bird sounds led him to examine the mechanism by which birds produce sounds. His study of bird flight led him to consider the relationship between size and shape of birds, and the aerodynamics of flapping flight. He treated each of these topics in highly respected monographs. During much of this time, he was president of DuPont de Nemours of Wilmington, Delaware.

Such examples ought to inspire birders to ask themselves if they have a special expertise that might be brought to bear on ornithological research.

Finally, I mention with particular respect the legion of anonymous birders who are the foot soldiers of ornithology. No large cooperative project, often led by professionals, would be possible without amateurs. Cooperative projects include censusing, banding, preparation of atlases, and the building of historical records for each locality. The birders who assist in such projects seldom find their names in bibliographies. They are the unknown soldiers of ornithology.

In summary, I have enumerated examples of amateurs who have found a niche in ornithology by the application of individual talent and opportunity: (1) the keepers of the local records, (2) people who have made particular birds their own by life history studies, (3) editors who have guided local and regional journals throughout the decades, (4) library scholars combing the archives for historical information, (5) people with training in the physical sciences and mathematics who have turned these talents toward ornithology, and (6) the legion of anonymous helpers who make all large cooperative projects possible.

HAROLD F. MAYFIELD is one of the foremost amateur ornithologists in North America. A successful businessman, he took early retirement to devote more time to conservation and ornithology. His accomplishments are extraordinary for the depth and breadth of knowledge and activity. His most notable of more than 200 publications was his definitive book on the Kirtland's Warbler, one of America's rarest birds. This brought him the highest honor in American ornithology, the Brewster Memorial Award, for "the most important work on the birds of the Western Hemisphere." Mayfield is the only person to have served as president of three of the four major professional ornithological societies: the American Ornithologists' Union, the Wilson Ornithological Society, and the Cooper Ornithological Society. Other honors include the Arthur H. Allen Award, presented by the Cornell Laboratory of Ornithology to a professional or amateur for broad and outstanding contributions to ornithology, and election to the Ohio Conservation Hall of Fame.

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