

Joseph J. Hickey was born on April 16, 1907, in the Harlem section of New York City. His family soon moved to The Bronx where his interest in birds was sparked by the Boy Scout movement and in particular by the Rev. Basil D. Hall, the scoutmaster with whom he still corresponds. The Hunts Point section in which he grew up offered some good opportunities for birding, particularly shorebirds, which he shared with boys like Richard A. Herbert, John F. Mathews, and Irving Kasso, with all of whom he formed life-long friendships. This was the era of Reed's Bird Guides. Binoculars were for scoutmasters. Boys saw warblers by climbing into the tops of maple trees and waiting.

The New York Zoological Park (Bronx Park) was the first geographic expansion of these boys' field horizons. Initially attracted by the chance to see native birds alive (even if in cages), they soon met other boys with similar interests: Allan D. Cruickshank, whose field work centered more in Van Cortlandt Park; John and Richard Kuerzi, whose father had given them binoculars; Frederick J. Ruff; and Philip Kessler. Hickey's first contact with an adult who was interested in birds, other than his scoutmaster, was Charles M. Johnston, who was seen watching a chickadee at the zoo on Feb. 22, 1921, when Hickey was nearly 14. Johnston was a retired British civil servant who had to leave India for reasons of health and who worked for the Encyclopedia Britannica in New York. He wore a derby and a Van Dyck beard, carried a gold-headed cane, and watched birds with binoculars. He was quizzed by two boys for about 2 hours ("Have you ever seen a Ross's Gull?"), and he gave them concrete suggestions on where to find birds around New York City. Soon everybody had binoculars, although some were only 4 power.

A major event in local ornithology, the appearance of Ludlow Griscom's Birds of the New York City Region in 1923, soon focused the attention of Hickey and his friends on the Linnaean Society of New York, which met twice a month in the tiny N. Y. Academy of Science room (capacity about 50) at the American Museum of Natural History. Here Jonathan Dwight presided as president. The boys sat in the back and called him "Old Handlebars" (he had a flowing white mustache). Griscom's book elevated arrival and departure dates for each part of the region to an exaggerated degree of importance. Blessed with all kinds of time after school, the boys soon had a glorious time breaking records on The Bronx list . . . and basking in the glory of Griscom's approbation. Their first really good record was a sighting of the second report of the Arctic Three-toed Woodpecker for New Jersey on . . . . This resulted in a note in The Auk. When the MS was sent to Witmer Stone, Hickey spelled Arctic without the c.

The Bronx boys now formed their own small bird club, which usually met in the Kuerzi home. The leader of this Bronx County Bird Club was Jack Kuerzi. Functions<sup>included</sup>: (1) a concentrated assault on Griscom's published records for The Bronx (which grew ornithologically to cover part of Westchester County as travel funds changed from nickels to quarters); and (2) the organization of a carefully planned and executed Christmas Bird Count. The latter soon produced the biggest lists in the Northeast and rendered obsolete the casual one-man counts in this region up to that time. For a time, The Bronx then competed on somewhat equal terms with Barnegat and Cape May. It was a lot of fun. Years later when a serious ornithologist published a long list of ways to improve the Christmas Count, Hickey, in a letter to the editor of The Wilson Bulletin (one of the few to an editor he ever wrote), argued against improvements in the name of Science and for the Count as a Sport.

Most of the boys in the B.C.B.C. remained long enough in New York City to serve as officers of the Linnaean Society. Three died prematurely. Those who stayed in New York were joined by Roger T. Peterson, who was promptly dubbed Roger T. Jamestown Peterson and later Roger T. Jamestown Wayne Peterson as a result of his constant and generally disparaging remarks about the avifauna of Bronx County. It wasn't that RTP meant to be disparaging. It was just that he found the avifaunal comparisons so interesting.

Hickey first met RTP and John T. Emlen in 1925 at some of the evening sessions of the A.O.U. meeting in New York. He remembers neither! The event of that meeting to him was E. H. Forbush standing on a ladder to hold up Fuertes' newest paintings for the next volume of The Birds of Massachusetts.

There is no doubt that Hickey's continuing interest in birding was crucially nourished by the Linnaean Society and the American Museum of Natural History. The museum staff always seemed to encourage one of its men to godfather the Linnaean Society, and over a half century or so half the presidents of LSNY had also been president of A.O.U. Of the museum men who were especially kind to him in his early years, Hickey remembers John T. Nichols and T. Donald Carter with affection. The staff in the Department of Ornithology in the 1920's he knew only slightly, and their influence on him was confined to lectures they gave at LSNY meetings. The unanimous feeling seemed to be that there were few professional careers available to a youngster interested in ornithology.

During his college years at NYU, Hickey majored in history and gave birding a secondary place to campus activities. He was business manager of the literary magazine, sports editor of the yearbook, and

member of the student council. He was president of the senior class at the same time Cruickshank was president of the junior class. He won five letters in cross-country and track, although he had not participated in either sport in high school. His few track victories included the IC4A indoor and outdoor mile championships in 1929. These were fairly slow races, but in June Hickey beat both the NCAA and Big Ten champion milers in a race won by Les Lermond in 4:13, the fastest world time for the mile that year.

From 1930 to 1933, Hickey coached the freshman cross-country and track teams at NYU. Three of the students on these teams made the U.S. Olympic team in 1932. Dropped in an economy move in 1933, he caught on in the sales department of Consolidated Edison and became a wholesale power salesman in the main office of the company. His interest in birding was now rekindled by frequent lunch-hour bull sessions with staff members of the National Audubon Society: William Vogt, Robert P. Allen, Richard H. Pough, and Margaret Brooks. He was now active in the Linnæan Society, serving as recording secretary, vice-president, president, and editor at various times. The turning point in Hickey's career came in the form of a semiprivate seminar that Ernst Mayr ran each month at the American Museum for business men. In a setup as a journal club, Mayr reviewed the literature for something like two years and gradually had the seminar participants take on the reviewing themselves. Exciting papers included Tinbergen's report on the behavior of the Red-necked Phalarope in spring, Lorenz's pioneering Kumpan paper, and the new avian census work emerging in Finland and Germany. It took Hickey a solid month to translate one short paper by Pontius Palmgren. Hickey was now courting Margaret (Peggy) Brooks, Audubon's librarian, who ultimately edited Bird-Lore and Audubon Magazine for the National

Audubon Society. He was somewhat unofficially allowed to borrow volumes briefly from the NAS library and, given this break, read on city subway trains the complete run of British Birds (then about 36 volumes) and an equally long run of The Auk.

With Mayr's advice and encouragement, he now began censusing the breeding birds of a wooded slope just north of the city, and at the urging of Bill Vogt edited the first five breeding censuses of Bird-Lore. Brimming with ideas on bird watching and stimulated by close contact with enthusiasts like Bill Vogt and Bob Allen (his closest friend at that time), he began to review books for Bird-Lore, published an enthusiastic paper on "The Amateur Ornithologist and His Bird Club," became secretary of The Hawk and Owl Society, and undertook an extensive survey of the peregrine falcon east of the Rockies. On this was superimposed a 2-year intensive nesting study of peregrines in a 10,000-square-mile study area in Connecticut, New York, New Jersey, and Pennsylvania. Sharing completely in the field work for this study were Walter R. Spofford, then an anatomist at Cornell's Medical School and chairman of the rock-climbing committee of the Appalachian Mountain Club, and Richard A. Herbert, whom Hickey had known since the age of 7.

By 1940, Hickey was aware of the new professional opportunities in ornithology and wildlife biology. His next promotion at Con Edison required an electrical engineering degree. He went back to college at night, taking 22 credits in <sup>instead of engineering,</sup> biology in two semesters. Dick Pough introduced him to Aldo Leopold, in New York for a meeting of the Audubon board of directors. In the fall of 1941, Leopold offered him a \$1000 assistantship at Wisconsin. Hickey was now baching it with his father, whom he supported; and he was not inclined to accept a \$1000 offer as a promotion, but Pough and Peggy Brooks talked him into it, and in late November 1941 he went to Wisconsin.

The Wisconsin assistantship involved a land-use study of submarginal farms in western Wisconsin, with particular emphasis on the possibilities of game refuges. In June 1942 Hickey married Peggy Brooks in Madison. The witnesses were Prof. and Mrs. Leopold. Peggy was full of the possibilities of his writing a book on amateur ornithology, and the writing was started on their honeymoon in La Crosse, Wis. This resulted in A Guide to Bird Watching, which actually constituted Hickey's master's thesis at Wisconsin. The book was dedicated to Peggy.

From 1943 to 1944, Hickey served as an assistant editor in the Toxicity Laboratory of the University of Chicago's Medical school, where all new chemical warfare agents for the allied governments were being screened and evaluated. On the side, he had a chance to take courses from Alfred Emerson and W. C. Allee. From 1944 to 1946, Hickey was assistant curator in the Museum of Zoology at the University of Michigan under Josselyn Van Tyne, who also became his major professor for the Ph.D. It was not a happy arrangement. Van Tyne was immersed in editing The Wilson Bulletin, and once Hickey realized he was not learning museum science he got out. He did complete his course work, and passed his two language exams and his prelims in a period of about six weeks. His publication record at Michigan was zero. He enjoyed teaching two sections of Zoology 1. Professorial advice to him at this point was "Let the students do the talking!"

From August 1946 through the end of 1947, the Hickeys studied longevity data in the U.S. banding files under the auspices of a Guggenheim Fellowship. This led to the publication of Survival Studies of Banded Birds in <sup>1951</sup>~~1949~~). It was not a subject on which one could get advice at that time and, lacking a sound <sup>d</sup> grounding as a mathematician, Hickey had the feeling of walking month after month on intellectual quicksand.

In January 1948, Hickey returned to Wisconsin as an assistant professor in Leopold's Department of Wildlife Management. Four months later and at the very height of his literary and philosophical powers, Leopold died of a heart attack. The tragic loss heaped on Hickey's shoulders teaching and administrative responsibilities for which he was hardly ready. He remembers, among other things, the Greenland invitation which he had to decline that summer. The manuscript for Survival Studies was now completed at night, and the Ph.D. at Michigan attained in the spring of 1949. Hickey thinks he may have been Van Tyne's only grad student to attain the degree.

In the 1950's, Hickey began to teach field ornithology at the University of Minnesota's Lake Itasca Biological Station. To him, his wife, and daughter Susie, these were wonderful vacations. But in June 1958, he noted on a visit to a Chicago suburb that the village was Robinless, and he realized for the first time that DDT used to control elm beetles and Dutch elm disease might be having a devastating effect on birdlife. That fall, he and L. Barrie Hunt, a graduate student, began an ecological study of DDT that at Wisconsin was to last 19 years and carry Hickey's students to the West Coast, Colombia, Switzerland, Denmark, and Iceland.

It was at the International Ornithological Congress at Cornell in 1962 that Hickey picked up the rumor that no peregrine falcon young had been raised that spring in the Northeast. When Derek Ratcliffe a year later reported a peregrine crash in Britain, Hickey suddenly realized we might be in serious trouble. His old boyhood chum and peregrine expert, Dick Herbert, was now dead, but his widow gave the University of Wisconsin \$5000 as a memorial to her husband; and in the spring of 1941 this funded Dan Berger and Chuck Sindelar, who set out to check

the productivity of Appalachian peregrine eyries that Hickey had reported in the 1930s. They found not a single adult still alive. This stunning result was reported to Hickey in Europe where he was spending the spring as Visiting Scientist at the Vogelschutzwarte für Hesse und Rheinland-Pfalz. He now could visit peregrine eyries and peregrine specialists in France, Switzerland, West Germany, Finland, and Britain. Sick or declining populations of peregrines were everywhere.

In 1965, Hickey convened the peregrine conference at Madison that was to alert the ornithological world to the ecological disasters that were affecting raptorial birds on two continents. The symposium was made possible by funds from the National Audubon Society and the U.S. Public Health Service. The U.S. Department of Agriculture refused to contribute, but they sent four observers. At Madison, patterns of reproductive failures were found to coincide: the British convinced their colleagues that (1) the adult birds were breaking and eating their own eggs, and (2) a pesticide or pesticides must somehow be involved. Not a single North American peregrine had ever been run for DDT. Starting in 1966, critically important research gaps were now rather quickly filled. Peregrines were found to be "loaded." Britain's Ratcliffe discovered that egg breakage was due to a shell thinning that set in in 1947, and Anderson and Hickey next showed for the first time how thin-shelled eggs in the Herring Gull coincided with residues of DDE, a breakdown product of DDT formerly thought to be rather innocuous. When Stickel and her co-workers at the Patuxent Wildlife Research Center confirmed this DDE effect in controlled experiments, the case against DDT as a pollutant was essentially completed.

This now-classic application of the scientific method involved more than a score of scientists working together in eight different



countries. The somber picture was lightened only occasionally. Hickey's research assistant, Dan Anderson, measured some 40,000 eggshells in both Europe and North America. It was a surprise to many that egg-collecting in the United States had been quietly going on right up to the present. It was a surprise also to Hickey that Dan Anderson was a masterful confidence man who had missed his calling. Collector after collector revealed to him their treasures. Over 80 Bald Eagle sets were illegally possessed in private hands. One collector had even slept in an eagle's nest on the night of December 31, and had breakfasted on eagle omelet in the nest the next morning in order "to start the year off right!"

The great difficulty facing scientists working on pesticide pollution effects at this time was to avoid taking positions in advance of their research. Hickey feels they did so with integrity, and that they were equally successful in not carrying out research just to prove they were right. As the case against DDT firmed up in 1969, the hearings on DDT began at state and federal levels. Those set up as adversary-type proceedings were no picnics. To an ex-miler, being pitted against an industry's lawyers or a stacked and well-coached House Committee on Agriculture was as exhilarating as a track meet . . . and he thoroughly enjoyed the contests. He received the Leopold Medal in 1972 from The Wildlife Society for his service to wildlife conservation.

As a teacher at the University of Wisconsin, Hickey finally settled on an introductory course, Principles of Wildlife Ecology, which in recent years attracted 450 students each semester. To avoid the horrors of mass academic production, it was another challenge that he tackled with relish. The class is divided into lecture sections at 8:50, 11:00, and 1:20 to reduce crow<sup>d</sup>ing and to achieve at least a minor sense of intimacy in a modest-sized classroom. Tapes play bird songs as the

students enter and leave, museum skins are set out for each lecture, and handouts of 1-6 pages summarize each lecture, since the visual aids (slides and films) preclude any taking of lecture notes. For a while, Hickey enjoyed having the sons and daughters of former students sign up for the course. ("It is when you get grandchildren that you can start feeling old.") In recent years, he has found it fun to have parents of former students coming in to take the course. Last spring he received a Chancellor's Award of \$1,000 for excellent teaching on the Madison campus.

The clues to a man's character are often found in his heroes. Hickey is grateful to Ernst Mayr for revealing to him the joys of scientific research; and to his wife, Peggy, for encouraging and sustaining him in the years needed to acquire training as a scientist. He looks to Bob Allen as the most magnetic personality and warmest friend he ever had and to Aldo <sup>L</sup> Leopold and John T. Emlen as the most successful men he has come to know well.

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