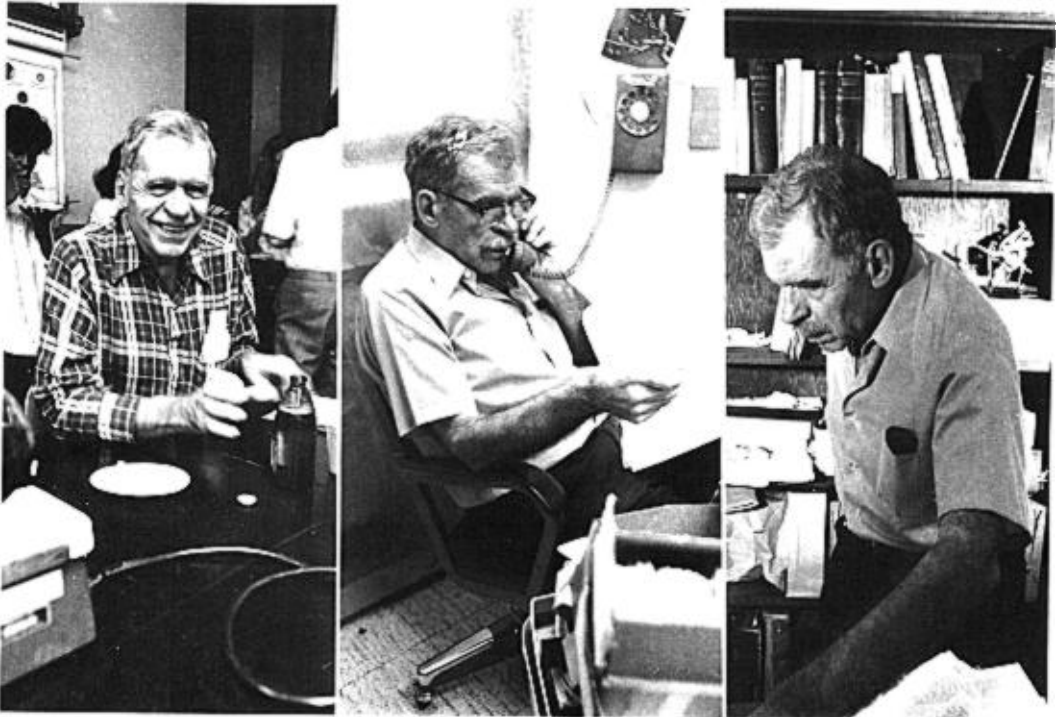




IN MEMORIAM: PIERCE BRODKORB, 1908-1992

STORRS L. OLSON

*Department of Vertebrate Zoology, National Museum of Natural History,
Smithsonian Institution, Washington, D.C. 20560, USA*



PIERCE BRODKORB, 1908-1992

PIERCE BRODKORB
WALK IN
DON'T KNOCK
DO NOT WASH WINDOWS
DO NOT WAX FLOORS

Thus proclaimed the bold black letters painted on the door of Pierce Brodkorb's old office in Flint Hall at the University of Florida, simultaneously reflecting a great dislike and a great passion. Brodkorb hated Josselyn Van Tyne, his former supervisor at the University of Michigan, whose door had borne a card saying "Please

knock and come in," whereas his great passion was his osteological collection and he did not want the custodial staff knocking over jars of macerating skeletons, trays of drying bones, or the great piles of reprints and correspondence that towered precariously on every surface of his inner office. Strictures on emptying trash were superfluous; Brodkorb never threw anything away.

Pierce Brodkorb's life and accomplishments have been celebrated recently in an impressive festschrift volume (1992, *Nat. Hist. Mus. Los Angeles Co. Sci. Ser.* 36) that includes a detailed

biography by Ken Campbell (and a bibliography by Jon Becker), who wrote, however, when his subject was still capable of rebuttal. Now, sadly, I am free from that constraint; where I must sail over the same waters I will at least try to be on a different tack.

Pierce Brodkorb was born 29 September 1908 in Chicago, Illinois, and died in Gainesville, Florida, on 18 July 1992. His early years were spent in the Chicago area, where he had numerous contacts among local ornithologists, including the private collector Henry K. Coale, and Colin Campbell Sanborn of the Field Museum, who taught Brodkorb how to skin birds. Brodkorb's upbringing gave him what some might call a "Midwest twang," although I have known many people from the Midwest who didn't twang at all and none who twanged like Brodkorb. More than 40 years of living in the Deep South had not the slightest effect on his accent.

For two years following his graduation from the University of Illinois in 1930, Brodkorb collected birds in Idaho for Harry C. Oberholser, who was then at the Cleveland Museum. Oberholser imposed a quota system under which Brodkorb was constrained to collect and prepare 300 specimens per month. Somewhere should exist a substantial series of House Sparrow skins from Idaho, as Pierce would fill out his quota with this readily obtained species on days when time was needed for other activities, presumably including the courtship of 18-year-old Edna Carleton, daughter of the Railway Express agent with whom he first stayed on arriving in Montpelier, Idaho. Edna and Pierce met in January and were married in July 1931. Edna accompanied Pierce for about a year during his collecting in Idaho and helped to prepare specimens out of an old panel truck that served as a camp and laboratory. Their only child, Judith Anne, was born in Ann Arbor in 1940. The marriage ended in divorce in 1976, a dissolution that was at least partially the result of osteoaccumulitis.

Brodkorb enrolled at the University of Michigan in 1933 and received his Ph.D. in 1936. His dissertation, never published, was a taxonomic revision of the difficult flycatcher genus *Empidonax*. Problems with Van Tyne must have begun in this period. In the acknowledgments of his dissertation is the obligatory sentence thanking Van Tyne for his role in serving as the advisor for the research, but pencilled in

the margin of Pierce's copy was the annotation, "BS, he was in the field when the work was being done."

The following decade, interrupted by military service in World War II, was spent as an assistant curator in the Museum of Zoology at Michigan. It was in this period that Brodkorb undertook his only important foreign fieldwork (apart from excavating fossils in Bermuda), making extensive collections of birds in southern Mexico in 1937, 1939, and 1941. These expeditions were the source of legions of anecdotes—humorous, apocryphal, and otherwise. I always liked the one about how Norman Hartweg who, when sent to town for supplies, would get into trouble because he couldn't remember the difference between *carbón* and *cabrón*. The acme of Brodkorb's Mexican work was his sturdy monograph on "Birds of the Gulf Lowlands of Southern Mexico" (1943, *Occ. Pap. Mus. Zool. Univ. Mich.* 55:1-88).

Up through 1950, Brodkorb's more substantive publications dealt mainly with descriptions and revisions of subspecies. A number of the taxa that he named during this period, however, failed to find acceptance in the ornithological literature. It was once suggested to me that James Peters may have had a jaundiced view of Brodkorb's taxa because of the review that Pierce wrote (1940, *Wilson Bull.* 52:214-215) of volume 2 of Peters' *Check-list of Birds of the World*. Brodkorb concluded this review by calculating that if coverage of the world's birds were continued at the same rate, the series would require 16 volumes rather than the projected 10, and would not be completed until Peters' 87th birthday in 1976. I don't know if Peters would actually have been offended by this prediction, but its accuracy is worth noting. The *Check-list* ran to 15 volumes (some much larger than the first two), and would have been completed in 1979, only three years off Brodkorb's estimate, had it not been for the postponed 11th volume that appeared in 1986, 34 years after Peters died. What Pierce could not have foreseen was the 20 additional authors and editors needed to finish the job.

The personality clash between Brodkorb and Van Tyne degenerated to the point that Van Tyne submitted written charges to the executive committee of the museum. Brodkorb countered these effectively, concluding that if the charges had been true then Van Tyne would have to be judged incompetent for having al-

lowed such a situation to develop. In 1946, motivated in part by this acrimony, Brodkorb accepted a position in the Department of Zoology at the University of Florida in Gainesville—a professorship he occupied for 43 years, until his retirement in 1989. Not long after his arrival he became involved with identifying bird remains from the rich and temporally diverse fossil deposits that occur in the karstic and phosphatic formations of central Florida; this involvement changed the course of ornithological history. Brodkorb's last paper on modern subspecies was a revision in 1950 of the Gray Kingbird (*Auk* 67:333–344), prompted, I feel certain, by his having personally collected specimens of the species at nearby Cedar Key. His first papers on fossils appeared in 1952. The changeover to paleontology was abrupt and virtually exclusive.

For Brodkorb to function effectively as a paleontologist it was necessary for him to have access both to the pertinent literature and to a comparative collection of modern bird skeletons. Thus, he began a program of acquisition of avian osteological and bibliographic materials, the scope of which is unlikely ever to be duplicated by a single individual. For years he also excavated fossils at various sites in central Florida, and he accumulated a large collection of fossil birds in the process. At the same time, he began training students who undertook theses and dissertations in avian osteology and paleontology, as well as in more traditional ornithological subjects. From 1950 to 1987, 18 master's and 17 doctoral programs were completed under Brodkorb. These figures underestimate his influence, as there were others, such as myself, who were his students for shorter periods, whose careers were indelibly affected by their association with Brodkorb.

In his classes, Brodkorb spoke without notes from a great store of personal knowledge, but in a dead flat monotone, and very slowly, with long pauses to gather in the next thought. He could be entertaining: "Linnaeus . . . recognized four classes of vertebrates . . . but . . . only two classes of invertebrates. . . I think that's about the right emphasis." But the usual effect, especially on sweltering Gainesville afternoons, was overwhelmingly soporific.

In a taxonomic world of lumpers and splitters, Brodkorb definitely fell in with the splitters. His paleontological papers, and not a few of the theses he oversaw, reflect what was a

sincere, but I think overly optimistic, belief that all bird bones could be identified to species, or even to subspecies. He set students to the task of attempting to discern, with varying degrees of success, the differences between such morphologically similar birds as King and Clapper rails, Blue and Scrub jays, Common and Fish crows, the two species of night-herons, or even between the forms of Common Grackle. Pierce once expressed to me his regret that he had never found the time himself, nor had been able to inspire a student, to investigate osteologically the differences between the subspecies of Rufous-sided Towhee.

As a result of his faith that such differences ran bone deep, Brodkorb's fossil descriptions were imbued with a typological perspective that was also probably a holdover from his old subspecies days. He sometimes based new fossil species on specimens that now would be considered insufficiently diagnostic to sustain the nomenclature attached to them. He never described a fossil bird from associated skeletal elements (except the flattened wing of *Primobucco mcgrewi*), or even a reasonably good series of disassociated elements. His contributions to the descriptive literature of avian paleontology dealt mainly with late Cenozoic birds from Florida and the western United States. Although he made lasting contributions, particularly to the fossil avifaunas of Florida, his descriptive papers were not especially numerous given the length of time he was active.

Yet, Brodkorb emerged as *the* pre-eminent world figure in avian paleontology. Although this was partly because he worked at a university, rather than a museum, so his influence was radiated by his students, it was due more to his compilation of the five-part *Catalogue of Fossil Birds*, published from 1963 to 1978. This was a summary of the entire taxonomic literature of avian paleontology, to which was added a compendium of synonyms of modern avian taxa above the level of genus. This required a tremendous bibliographic effort, which was aided by Pierce's scholarship and capacity to read scientific literature in various European languages. When one considers the relatively few errors that crept into the *Catalogue* and the fact that Brodkorb worked from 3 × 5 cards in the days before computers, one begins to appreciate more the magnitude of the undertaking. In 1978, the *Catalogue* earned him the Brewster Medal of the American Ornithologists' Union (*Auk* 96:

212, 1979), of which he had been a member since 1925, Elective Member since 1937, and a Fellow since 1958. A prominent ecologist once expressed to me his sense of admiration that such a voice of authority on fossil birds had emerged "out of the wilderness" so to speak. One has the impression that Brodkorb, more than any of his contemporaries, kept avian paleontology in prominence until the field attracted the numerous active workers it has today.

Brodkorb was also internationally renowned for his rigid adherence to the law of priority in nomenclature. He sincerely believed in the simplicity and logic of applying this most basic tenet of nomenclature in a consistent manner, yet he also enjoyed using it to tweak an ornithological establishment committed to maintaining "existing usage" at any cost. He was only a gadfly on the establishment ox, of course, but at least he made converts of virtually all of those of his students who subsequently dealt with matters of nomenclature.

Although Pierce could be quite outspoken on this or any subject he felt strongly about, he was basically a very kind, sympathetic, and generous person. He maintained a voluminous correspondence and was particularly giving of his time and resources with foreign colleagues, some of whose research and travel he paid for out of his own pocket. A Polish colleague, who first wrote to Pierce to point out some errors in Czechoslovakian localities in the *Catalogue*, was "very afraid" of the response this might invoke from the "great professor Brodkorb," but the return mail brought an openly friendly letter including a proposal to exchange skeletal specimens, an arrangement that continued to the mutual benefit of both parties for years. Many other researchers experienced similar kindnesses.

Pierce had a grand sense of humor that bubbled irrepressibly at the very surface of his being. His eyes almost always twinkled with merriment or mischief. He was constantly looking for a play on words, a way to pull someone's leg, or some means to set up a practical joke. The more pompous and pretentious the recipient of the jape, the more Pierce enjoyed himself, as these were qualities he detested. When the Society of Vertebrate Paleontology met in Gainesville in 1980, Pierce was hardly to be seen because he spent most of the time in his office preparing an edition of a spoof journal, *Skull-*

duggery, akin to the well-known *Auklet* of AOU meetings. At banquets the place he shared would inevitably have the most wine and, like Yorick, he was always "wont to set the table on a roar." It was a dull postprandial gathering that was not graced by Pierce singing several verses of "A mi me gusta el aguardiente," or some other Mexican drinking song.

Toward the end of his career, Brodkorb's skeleton collection became his chief preoccupation. Although he did relatively little collecting himself, his students and colleagues brought him specimens from near and far. He exchanged widely and often purchased specimens from foreign collectors with his own funds. His office was famed for its shelves and counters filled with hundreds of jars of macerating skeletons and, naturally, for the very characteristic odor emanating from them. This was one of the major sources of the hosts of "Brodkorb stories" that are shared among all his acquaintances. By the mid-1980s the Brodkorb skeleton collection was the eleventh largest in the world, based on total number of specimens, but fifth in importance in terms of numbers of species, facts of which he was immensely proud.

Brodkorb's acquisitiveness early brought him into conflict with the nascent Florida State Museum, as it was then known, which was formed in part from collections that had been accumulated by university faculty. Brodkorb's refusal to part with his collection led to a long-standing, rancorous feud with the Museum, during which he had to battle fiercely to continue to exercise control over what he considered to be his own collection. Although he won out, there was never a reconciliation; throughout his long tenure in the Department of Zoology, Brodkorb steadfastly refused a joint appointment in the Museum.

There were historical and practical reasons for Pierce's stance. To begin with, he felt that he had lost access to the collections he had made in Mexico as a result of his falling out with Van Tyne; he did not want to repeat that mistake. More importantly, he not only had unrestricted access to the collection himself, but so did his students. The very first thing that Pierce would do when new students presented themselves was to give them a key to his office, as he was unfailingly trusting of anyone who had not been proven untrustworthy. As a newcomer who wanted to study avian osteology and paleontology with Pierce Brodkorb, you had no bu-

reaucratic hurdles, no requirements to meet, no administrator or overzealous curator to curry favor with. You had free access to everything Brodkorb had ever acquired from the first day you walked into his office. It was the most precious gift he would ever give and he fought tenaciously for the freedom to give it.

As late as 28 September 1988, at the Los Angeles meeting of the Society of Avian Paleontology and Evolution, which was held in honor of Brodkorb's 80th birthday, Pierce told me emphatically that he did *not* want his collection to go to the Florida Museum of Natural History. In a will dated 31 July 1987 he left his skeleton collection to the Field Museum, although that was not its eventual disposition. The end of that story has not yet been written, and I will leave it for others to tell.

One of Brodkorb's greatest achievements, with his knowledge and accessibility, his fossils, his books and papers, and above all his osteological collection, was to create an environment—a self-sufficient world of scientific inquiry and discovery. His students and colleagues had complete freedom to enter this world and derive as much or as little from it as their abilities and interests permitted. Although the collection he labored over so long remains in Gainesville, the environment that he created with it is unfortunately gone forever. But those who were privileged to enter that world, and to be inspired by it while it existed, now pay grateful tribute to a truly unique figure in 20th century ornithology by continuing the work he started.

The Auk 110(4):915-916, 1993

IN MEMORIAM: GORDON W. GULLION, 1923-1991

HARRISON B. TORDOFF¹ AND C. STUART HOUSTON²

¹*Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota 55455, USA; and*

²*863 University Drive, Saskatoon, Saskatchewan S7N 0J8, Canada*

Gordon W. Gullion, a University of Minnesota professor and world-renowned expert on Ruffed Grouse (*Bonasa umbellus*), died on 23 September 1991 after a long battle with cancer. Gullion's three decades of research on Ruffed Grouse and other forest wildlife have been instrumental in the development of practices used by public agencies and private foresters to manage forests for the combined benefit of wildlife and timber production.

Gullion was born in Eugene, Oregon, on 16 April 1923. His parents gave him the two-volume set of the National Geographic Society's *Book of Birds* for Christmas, 1937; after reading it through, he started his life list by entering a Song Sparrow on 26 January 1938. He received his B.S. degree at the University of Oregon at Eugene and his M.S. at the University of California at Berkeley under the direction of the notable wildlife scientist, Starker Leopold. In his studies of the American Coot (*Fulica americana*), Gullion first described the voice differ-

ences between the sexes, histology and development of the frontal shield, sex and age determination, molt, territorial and courtship activities, and seasonal variation in interspecific and intraspecific territorial activity. After working for seven years on Sage Grouse (*Centrocercus urophasianus*) and Gambel's Quail (*Callipepla gambelii*) with the Nevada Fish and Game Department, he joined the Department of Fisheries and Wildlife at the University of Minnesota in 1958.

As head of the forestry wildlife project at the Cloquet Forestry Center for 32 years, he conducted a management-oriented study of the Ruffed Grouse and its habitat relationships that is unequalled in duration and intensity. His studies clearly have identified the influence of specific habitat components, especially aspen, on the life history of Ruffed Grouse and, from these, he formulated forest-management procedures to benefit grouse and other wildlife. For two decades he collected grouse wings and tails