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IN MEMORIAM: MARTIN HUMPHREY MOYNIHAN, 1928–1996

NEAL GRIFFITH SMITH

Smithsonian Tropical Research Institute, Balboa, Ancon, Panama

Martin Moynihan died of lung cancer on 3 December 1996 at a hospital near his farm at Albi, France. He was a former director of the Canal Zone Biological Area/Smithsonian Tropical Research Institute (STRI) and one of the most influential figures in behavioral evolutionary biology, particularly with tropical organisms. He joined the AOU in 1954, became an Elective Member in 1959, and a Fellow in 1966.

Martin was born on 5 February 1928 in Chicago, Illinois. As a youth he traveled widely in Europe with his mother and considered French his co-native tongue. His secondary education was at Horace Mann School in New York City, where at 15 he became interested in birds at the American Museum of Natural History and within two years had met Ernst Mayr, the pivotal figure in his development. Mayr took on Martin and the result was his first paper at age 18. Martin's undergraduate career at Princeton was interrupted by army service in Korea, but he graduated Summa Cum Laude in 1950. He wanted to work with David Lack at Oxford, but events transpired so that he entered the behavior group under Niko Tinbergen. Martin told me that Lack was away at the time, that he himself couldn't "see the damn tits in the woods, and that gulls were big and easy." Indeed!

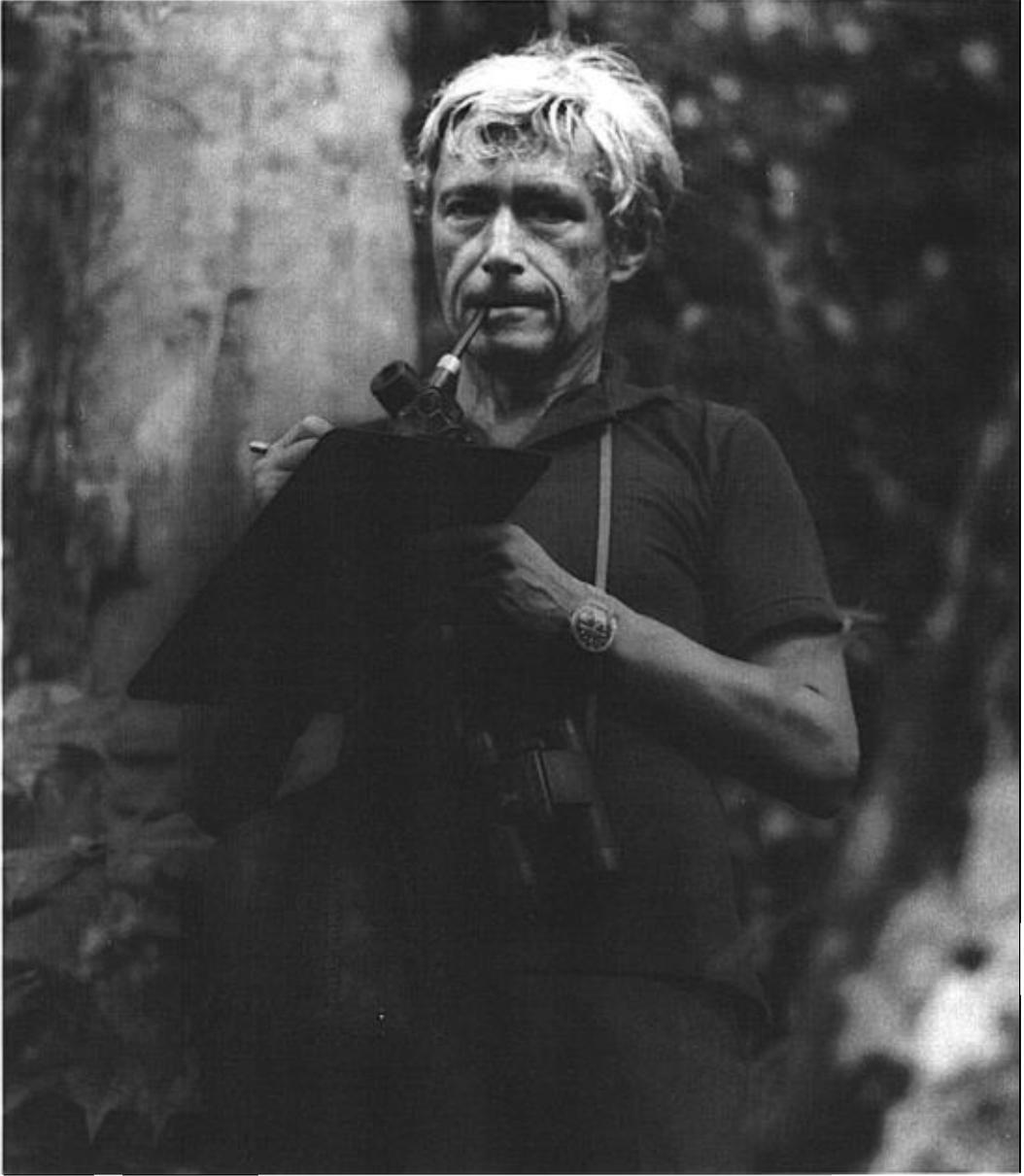
That was the blossoming period of European ethology. Martin's fellow researchers included Desmond Morris, David Blest, and Aubrey Manning to mention but a few who rose to stardom in some aspect of behavioral research. But Martin was different. His all-consuming interest was in evolution. Princeton gave him a strong background in paleontology, which almost all behaviorists and ecologists lacked. He was always a three-dimensional thinker.

His bibliography shows that he dealt with the hot questions of the day at Oxford: drives,

ritualization and causation all received his attention, through the gulls. From the first gull papers came his highly distinctive, boldly original, black-and-white ink depictions of displays that were as much a Moynihan trademark as were the original ideas expressed in his papers (see Figs. 1 and 2). All of Moynihan's books and papers are full of these wonderfully strange representations of form and flow of behavior in birds, primates, and cephalopods!

After Oxford, Martin entered into a series of postdoctorals which, while based at Harvard and Cornell, allowed him to travel and pull the gull business together, which he did in his revision of the Laridae. Ernst Mayr, Charles Sibley, and Eugene Eisenmann were his friends and advisers. All three claimed to have been solely responsible for the Smithsonian's hiring of that young behaviorist as Resident Naturalist of Barro Colorado Island in the then Canal Zone of the Republic of Panama. A bright Tinbergen-trained ethologist who understood the New Systematics and evolutionary biology could scarcely be overlooked. At the time, he was probably unique.

Barro Colorado, a forested island in the midst of the Panama Canal was, in 1957, a sort of tropical Arcadia. It had been made famous by the semipopular writings of Frank Chapman. Good research had been done there: Chapman's own research on manakin leks was, like much of his work, well ahead of the time. Carpenter's work on howler monkeys and Schnerla's studies on army ants were also firsts. But when the Smithsonian took over Barro Colorado in 1946, it rather languished despite a number of bird and mammal life histories. That changed with Martin Moynihan's arrival in what he loved to call "the green hell." And I will argue that the whole scheme of what was to become "tropical biology" was set onto a



MARTIN H. MOYNIHAN, 1928–1996

(Studying kingfishers in Sumatra)

path by this one individual who showed that it was indeed possible to do sophisticated biology there; the phenomena that he presented to the world influenced researchers who were only vaguely aware of the name Martin Moynihan.

I see four areas in which Martin Moynihan either made original ideas or developed exist-

ing ideas in a totally different direction. They are social mimicry; the significance of mixed-species flocks; the origin, life, and death of displays; and finally the relative evolutionary success of temperate versus tropical animals.

The first paper of his that I read was his overview of the *Larus* gulls. I was interested in gulls and I liked his Mayr-like sweep in properly

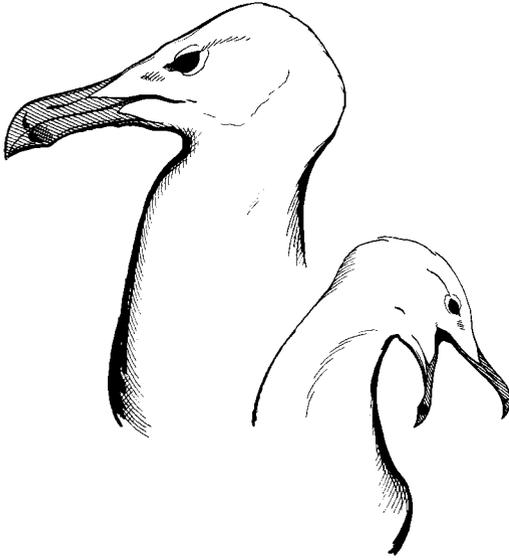


FIG. 1. Aggressive postures of the California Gull (*Larus californicus*). Pen-and-ink by Martin Moynihan.

outlining the broad evolutionary relationships in the group. The approach was strange, but the result was good. When I read his first mixed-species papers in preparation to my coming to Panama, my thinking was jolted. What a bizarre way to think about birds, alien as they were to me at that time. These same species are now, after 36 years, almost ignored in my everyday activity. But when I reread Martin's papers, they become players on a higher level in an all-so-subtle and terribly important evolutionary play. I was not alone in being thrilled by his ideas. Terms like "passive nuclear" and "active nuclear" species were Martin's, but they quickly became part of the lingua franca of students of mixed-species assemblages of birds, mammals, and fishes throughout the world—and usually without citing the original papers. Is this high praise?

Moynihan's development of "social mimicry" stirred up an intellectual brew that I claim gave rise to such trends as "badge school of status advertising," "handicap principles," etc., and even the latest "symmetry" fads. His 1970 paper on the appearance and replacement of displays should be read with his book on cephalopod communication to get the full brunt of that highly original argument. It was an answer to many of the central questions of the Oxford



FIG. 2. Thick-billed Euphonia (*Euphonia laniirostris*). Pen-and-ink by Martin Moynihan.

years. I wonder how many of his former graduate associates realized that? Many readers of *The Auk* will not know that he studied cephalopods in much the same manner that he studied birds: wearing sneakers, carrying a note pad, and with a pipe stuck in his teeth! Animals had fixed numbers of displays, and some cephalopod displays were millions of years old. A subtitle in his cephalopod book read "Of arms and the man and various color changes I sing, Baby—Vergil and Hart." I don't think that cephalopod biologists ever got over that book.

But the temperate/tropical comparison was a soup that he stirred almost constantly, never satisfied that he had it right, and goading others to come up with ideas. When "broken sticks" and species diversity were in vogue, Martin delivered his all-too-frequent judgment that they were "beneath contempt" in their failure to consider paleontological history. "Can you imagine considering that the antelope niche of North America is filled? Send them back to the Pleistocene!"

Aside from these four concepts is the overwhelming fact that in 17 years he built a research organization from almost nothing to one of the most productive in the world. And he still managed to write 25 papers and books totaling more than 1,000 pages. And a book, finished during the terminal phase of his illness, is yet to appear.

Martin came to the Smithsonian at the right time. He started under Leonard Carmichael, a psychologist of the American school and a fel-

low Princetonian. Martin played that coin to his advantage. At first he brought his friends from Oxford, Harvard, and Cornell to Panama for short visits, but soon he realized that a permanent staff was needed. Carmichael came through. Dillon Ripley followed, and his admiration for the Ivy League/Oxford Moynihan was great. Martin got what he asked for, and the Smithsonian got the prize. Those were high-flying years indeed.

Ernst Mayr and Eugene Eisenmann told me that when they were asked in the early days by researchers, seeking to grasp the new "tropical thing," where they should go, the answer was always: "Go see Moynihan's operation in Panama." But Martin did not welcome everyone. He made choices as to who seemed "worthwhile" and should be supported, and who should go elsewhere. Researchers with similar personalities went elsewhere, to Costa Rica, Peru, and Brazil. Moynihan and his growing group were viewed as being arrogant and difficult. Although academics often pride themselves on the number of their graduate students, Martin was diffident in this regard. But legions of disciples will attest that his sheer force of personality was a magnet. Dinner parties at Martin's houses were famous for the cuisine and wine *ad libitum*. Ideas were fleshed out and attacked. Fellow researchers were rated and berated. The taxonomy of who was good—"First Rate, First Rate," usually only Darwin, versus those who were "Second Rate, First Rate," Mayr and occasionally Tinbergen—changed with each party. Science, art, history, and politics were flashed around the table by Martin. He invited intellectual attack.

By 1974 his frustration with guiding an organization that had grown logarithmically reached a peak, and by sheer determination he chose his successor from one of his early Mayr

graduate students, Ira Rubinoff, to carry the battle on against Washington. And his choice was the correct one, for we are still here.

Martin married anthropologist Olga Linares and began to return to research and travel, especially to Africa where she worked. But he remained an enormous influence on the STRI group, and to some, a real thorn in the side of an expanding administration. He and Olga bought a farm house in southern France, where he kept and studied various pheasants. They traveled to her research area in Senegal, where he began his studies of coraciiforms. Illness plagued him for much of his late career. He seemed to have picked up every possible disease that the tropics had to offer. Malaria and amoebiasis left their marks on the always wasp-waisted and flat-buttocked Martin. However, he had what I called a "Lazarus disposition." Just when it looked as if the parasites had won, Martin would bounce back with a smile and his pipe.

I knew Martin Moynihan for 36 years. He hired me because, like the others that followed, my work "amused him." When I first met him, he looked like Salvador Dali, for he sported an almost 5-inch waxed mustache, wore a Bond street suit, and carried a proper British umbrella. He remained an elegant though less dandy figure for the rest of his life. The photo is typical. He had a reputation for rages and sudden changes of mood. In the early years he was always firing off his resignation because things were not going his way. It was pure theater.

Martin was a gentleman in the true sense of the word, and perhaps the most intelligent person that I have ever met. His breath of knowledge was awe-inspiring. He was my director and my friend. The history of Science has a place for a man like him. We as ornithologists should be very proud that he was one of us.