

JESSE ROY CHRISTIE: THE GENTLEMAN NEMATOLOGIST

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INTRODUCTION

Should one have met Jesse Christie, either socially or professionally during the course of his career, it would be difficult not to regard him as anything but a gentleman in every sense of the word. Thus our title, "The Gentleman Nematologist." His dress, his manner, his attentiveness as a listener, all bespoke a fine and considerate person.

One did not hear unkind words from Jesse Christie about any of his associates, and one did not hear others speak unkindly or critically of him. Yet, this was a man of great scientific accomplishment who published numerous papers of consequence in nematology and who could easily have been critical or outspoken in many areas. The senior author first met Dr. Christie in 1954 when, as an undergraduate student, the senior author was assigned the task of preparing Jesse Christie's extensive library for inclusion into the University of Florida Library, to which it had been donated. This was not only an introduction to Christie but also an introduction to a long career in nematology.

In preparing this paper, we asked one of Christie's early colleagues, A. L. Taylor, many questions about his personality, his work habits, his hobbies



Dr. J. R. Christie at work in Gainesville, Florida.

and idiosyncrasies. Al Taylor helped us to see Christie as an unassuming but highly productive scientist, with much character, a gentle disposition, and a great devotion to nematology. Jesse Christie apparently had no administrative aspirations and so spent his professional life quietly, but very productively, in the laboratory.

BEGINNINGS

Jesse Christie was born in 1889 at New Boston, New Hampshire. He attended the University of New Hampshire from 1909–1913 but graduated from the University of Kentucky in 1914. From 1917–1919 he served in the United States army, and while in the service he earned a Master of Science degree in Parasitology from the University of Illinois. His first academic opportunity occurred a short time after leaving the army when he accepted a position teaching Zoology at Fairmont State College in West Virginia. He also lectured in Zoology at Milikin University in Illinois, and earned his PhD in parasitology at George Washington University in 1934.

THE PROFESSIONAL NEMATOLOGIST

In 1922, at the age of 34, he became a member of the Office of Nematology, Bureau of Plant Industry, U.S. Department of Agriculture in Washington,

D.C. The group he joined was the nucleus of an outstanding team of scientists under the direction of N. A. Cobb, a world famous nematologist, considered by many to be the father of American nematology. This group, at one time or another, included Gerald Thorne, Gotthold Steiner, B. G. Chitwood, A. L. Taylor, and many other notable scientists.

Jesse Christie was given space at the Eastern Field Station at Falls Church, Virginia, where he pursued research on nematode parasites of insects. From 1923–1937 he published 19 papers on this subject, culminating in an outstanding 129-page chapter entitled “*Life History (Zooparasitica)*” in B. G. Chitwood’s *Introduction to Nematology*. Christie’s research leader, N. A. Cobb, published numerous scientific papers principally concerning nematodes but included a co-author only twice. One of these was Christie in 1927.

Every summer, Cobb took one or more members of his staff to the research station at Woods Hole, Massachusetts, to study marine nematodes and invertebrate parasites. It was here that Christie and others worked out the life cycle of *Mermis subnigrescens*. Chitwood, while reminiscing about these days, recalled that Cobb would get the whole team out of bed in the early morning hours so that they could crawl about on their hands and knees in the wet grass looking for ovipositing mermithids. From 1927–1930, Christie served as secretary of the Helminthological Society of Washington and was elected president in 1930. In 1932 Christie, in the role of editor, launched the “*Proceedings of the Helminthological Society of Washington*”, a highly respected scientific journal. He remained editor until 1947, was elected to life membership in 1956, and received the Society’s 1964 anniversary award.

After Cobb’s death in 1932, G. Steiner was appointed his replacement. Christie’s insect parasite project at Falls Church was discontinued and he moved to Washington, D.C. In 1940 the group was moved to Beltsville, Maryland, to make room for activities incident to the war effort. Jesse Christie’s new assignment dealt with plant parasitic nematode problems. He worked principally with foliar and root-knot nematodes in areas of chemical and biological control, development, life cycle, host-parasite relationships, taxonomy, and methodology. One of his principal contributions to nematology was his evaluation of chemicals for nematode control in 1945 and 1947, resulting in the elucidation of ethylene dibromide—subsequently to be one of the major chemicals used in nematode control. He published 75 papers dealing with phytoparasites. His book, *Plant Nematodes Their Bionomics And Control*, published in 1959, remains today a practical and useful text to students, teachers and professionals in the field of nematology. In the preface of his book Christie stated, “Although not written expressly for them, I am hopeful that farmers, home gardeners, county agents and others interested in growing plants and who have occasion to be concerned about the problem of controlling nematodes may find helpful information in this book. To this end I

have made frequent use of the common names of nematodes wherever these are available, sometimes without giving scientific names. It makes little difference whether or not a common name can qualify as being "appropriate." German iris, American hookworm and smooth-headed lesion nematode all serve satisfactorily as common names, despite the fact that German iris did not come from Germany, American hookworm was introduced into America from Africa and nearly every other species of *Pratylenchus* has a smoother head than the smooth-headed lesion nematode." Christie, of course, included a complete list of vernacular and corresponding scientific names.

In 1948 he was assigned to the field laboratory at Sanford, Florida. He was still not totally convinced that nematodes were serious parasites of plants, but joined with V. G. Perry in demonstrating that both stubby-root and sting nematodes were very serious plant parasites. The devastating damage to crops in the Sanford area by nematodes led Christie to devote the rest of his working career to research dealing with plant parasitic nematodes. He retired from the USDA in 1953 with the rank of Senior Nematologist and that same year accepted a post with FAO to investigate nematodes in the Spice Islands (Indonesia). While there, he was amazed by the paucity of phytoparasitic nematodes in certain exotic habitats and, in particular, by the apparent absence of root-knot nematodes. His principal investigation concerned burrowing nematodes infecting pepper on the island of Banka and a rice disease caused by *Hirschmanniella oryzae*. Christie must have loved poetry. In his nine part series "*Hunting Nematodes in The Spice Islands*", published in *Nematology Newsletter* (1966–1968), each part included a cited relevant poem, including four of his own, one of which is as follows:

"When evening time has started and the bats long since departed
And clouds obscure the fading rays of light;
All sounds are dim and distant and my thoughts grow less persistent,
Then a tjetjak breaks the silence of the night."

In 1954 he joined the faculty of the University of Florida where he established and developed a nematology program that included teaching, research and applied aspects. His efforts culminated in a Nematology Department allied with the Entomology Department at the University of Florida, which is now housed in a research complex employing five research nematologists.

During his tenure he was housed in a small building next to a peach orchard where he did research, processed samples, and assisted students. There was no formal academic program in nematology at the University of Florida at this time. Christie presented lectures in a Nematology course within the department of Plant Pathology and instructed two notable graduate students, Drs. Joe Good and Walter Thames. He was highly respected by students and

colleagues at Florida. Only once was he seen to turn red, lose his temper, and take someone to task. Dr. B. G. Chitwood had made the mistake of saying some very unflattering words to one of J. R. Christie's students who was giving a seminar and Dr. Christie reacted as a female bear might to someone who kicked one of her cubs right under her nose. Those who knew both Dr. Chitwood and Dr. Christie also knew there was a deep abiding respect for one another, and minor disagreements were soon forgotten. Christie retired for the second time in 1960.

He received many honors and awards in acknowledgment of his scientific and academic accomplishments. He was a charter member of the American Society of Parasitologists, elected a fellow in the American Phytopathological Society in 1972, and made an honorary member in the Society of Nematologists, Soil & Crop Science Society of Florida, and the Florida Nematology Forum. He also received the Florida Fruit and Vegetable Association Research Award in 1957 and the Sigma Delta Faculty award in 1961. Dr. Christie maintained a home in Nova Scotia as well as Florida and following retirement resided seasonally in one of the homes. The highly productive career of Dr. Christie was ended by his death on April 21, 1978.

DR. CHRISTIE THE MAN

The high regard for Dr. Christie by students and colleagues alike notwithstanding, reflections of personal parsimony occasionally surfaced, possibly engendered by living in America during the depression. He was known to use microscope slides and coverslips over and over until they were too worn to transmit light. A major catastrophe was to drop a coverslip and step on it. One of his colleagues said they took coffee with him every morning for years and Dr. Christie invariably maneuvered himself to the end of the line, whereupon someone else paid for the coffee. One day, by designed plot, they manipulated Dr. Christie to the head of the line. When he reached the cashier he carefully cracked open a tiny change purse, withdrew a nickel and paid for *his* coffee.

Overshadowing any parsimonious idiosyncrasy was his innate generosity in giving of himself to students, to colleagues, to co-workers, and anyone else requiring his services. In conclusion, J. R. Christie was a gentleman, a pioneer in the science of nematology and one of the human treasures of our discipline.