
IN MEMORIAM



Dr. J. W. MacARTHUR, Ph. D., F. R. S. C.

John Wood MacArthur was born in Buffalo, New York, on September 2, 1889. He received his AB degree from Oberlin College in 1910, his AM from Wabash College in 1912, and his Ph. D. from Chicago University in 1921. He served as an instructor in geology and zoology at Wabash College in 1911-12, he was a research fellow at Chicago University in 1913-14, and an instructor in anatomy at the Illinois College of Medicine in 1917-18. He taught experimental biology at the University of Toronto from 1919 to 1923. In 1923 he received a joint appointment at the University of Toronto and at the Ontario Agricultural College as Assistant Professor of Genetics. In 1935 he received an Associate Professorship, and in 1943 was promoted to Professor. In 1948 he went to

Marlborough College in Vermont to organize their Biology Department, and served there until his death on July 1950.

MacArthur has left a distinguished and versatile record in the field of genetic research. Early in his research he identified several sex-linked genes in fowl. He was a pioneer in the mapping of tomato chromosomes, and determined the linkage relationships of 27 genes. His work and concept of geometric size inheritance in the tomato is well known. He later extended his research on size inheritance to mice. Starting with a mixed strain he selected for over 30 generations, resulting in a large strain twice the size of the original and in a small strain less than half the size of the original.

He was coauthor of the book entitled *Collected Studies of the Dionne Quintuplets*, in which he records comprehensive and detailed comparisons of the dermatoglyphics of the quintuplets with each other and with those of three of their brothers and sisters. His analysis demonstrated beyond reasonable doubt that the quintuplets are monogygotic. He and Mrs. MacArthur devised a general formula for the diagnosis of multiple births as to zygosity, based on comparisons of four types of variation in finger and palm prints. These include (1) total ridge counts on fingers, (2) types of patterns of finger tips, (3) main line formulae of palms, (4) and palm patterns.

MacArthur was greatly respected and admired by those who knew him. His willingness to advise and counsel was a source of inspiration to his students and colleagues. He was a scientist in the truest sense of the word, and his contributions are significant and lasting.

He is survived by his widow, two sons, and two daughters.

DAVID C. RIFE