

*Di Reeve*

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# Genetical Research

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## Douglas S. Falconer

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Douglas Falconer, Emeritus Professor of Genetics and former Director of the Agricultural Research Council Unit of Animal Genetics at the University of Edinburgh, will be 75 years old on 10 March 1988. His colleagues and friends want to mark this occasion and offer their best wishes to him.

Douglas Falconer attended school in Edinburgh, was an undergraduate in Zoology at St Andrews University and took his Ph.D. at Cambridge, working on the behaviour of wireworms. His mouse-genetics career started with R. A. Fisher at Cambridge, and in 1947 he returned to Edinburgh to join the ARC Animal Breeding and Genetics Research Organisation, and subsequently that part of it comprising the ARC Unit of Animal Genetics, associated with the University, under C. H. Waddington's direction. He later became Deputy Director of the Unit and then in 1968 was appointed to a Personal Chair in Genetics in the University and Director of the ARC Unit. From 1968 to 1977 he took on the added burden of Headship of the University Department of Genetics, and retired in 1980, after which the ARC Unit closed. As those who know him would expect, as an administrator he was helpful, fair and painstaking, and we are grateful for all he did for the Institution of Animal Genetics and its staff.

Falconer first contributed to formal mouse genetics, including the analysis of mutants such as 'reeler' and 'tabby', the first useful sex-linked mouse gene. On coming to Edinburgh he initiated selection experiments in the mouse and some of these studies had both an immediate and a long-term impact. Notable among them were: the experiments reported in 1952 on selection on different levels of diet and the subsequent interactions, and particularly the interpretation of interactions in terms of genetic correlations; the analysis of the effects of selection and inbreeding on litter size in mice, reported around 1960, which led to interpretations of maternal environmental effects and of the genetic interrelations of ovulation rate, embryo survival and litter size; and the

replicated selection experiments with the Q lines, published in 1973, with the insight these gave into variability in response. His most recent experimental work was an elegant study using chimaeras of lines selected for high and low body weight, which showed that the control of growth could not be simply attributed to a single organ. Falconer's major theoretical advance was in demonstrating in 1965 how to analyse and interpret data on congenital defects, particularly of man, with a polygenic threshold model. Although the model was not new, his analysis was so simple and elegant that it became the norm.

There is little doubt, however, that Douglas Falconer is best known for his text *Introduction to Quantitative Genetics*, first published in 1960. This immediately became the bible for all would-be quantitative geneticists and animal breeders, and has had a more recent market in the teaching of the quantitative genetic bases of evolution and natural populations. The book's utility and popularity can be judged from its many reprintings, the demand for the second edition of 1981 and the publisher's request for a third edition, currently in preparation. Through this book Falconer has had more influence on the teaching and understanding of quantitative genetics than any other person.

Falconer's achievements as a researcher and expositor have been widely recognized, notably by election to the Royal Society in 1973.

His advice and friendly counsel are still being sought and he continues to devote the same care, patience and concern to all that he takes on. He has been and remains a regular referee for *Genetical Research* and both the journal and the authors, whose work he has improved, have benefited from his help.

We wish Douglas and his wife Margaret many more happy years and, when the third edition is finished, the time and the good health to pursue their interests of music, walking and travel.

