

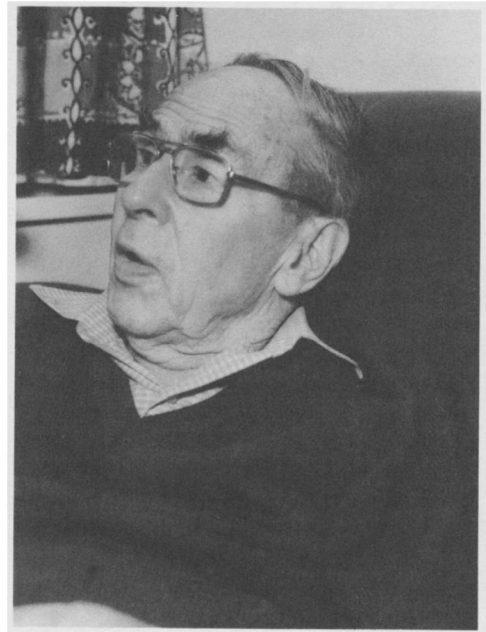
# awards

## EMINENT ECOLOGIST

Herbert G. Andrewartha

Herbert G. Andrewartha and L. Charles Birch have enormously influenced the trajectory of modern ecology. Both men hold doctorates from the University of Adelaide, where Professor Andrewartha has spent most of his academic career and is currently Professor Emeritus. Professor Birch moved to the University of Sydney in 1948 and is now Professor Emeritus there. Their first publication together in 1941, "The influence of weather on grasshopper plagues in South Australia," foreshadowed a remarkable collaboration that has lasted half a century, punctuated particularly by two major books, *The Distribution and Abundance of Animals* (1954) and *The Ecological Web* (1984). The Ecological Society of America has never before presented the Eminent Ecologist Award jointly to two persons. In this instance such a tribute is highly appropriate; their names and reputations are as inextricably intertwined in our discipline as are those of Gilbert and Sullivan or Lee and Yang in other fields. Though either man's independent career is worthy of honor, their interaction has been a highlight of ecology.

Both men have worked especially with insect populations, but their insights have informed our field to the extent that the "Andrewartha-and-Birch school" connotes a widely recognized viewpoint and suggests a distinctive research protocol. *The Distribution and Abundance of Animals* was a landmark synthesis of field population ecology that inspired the generation widely credited with constructing modern ecology. Andrewartha and Birch's hallmark has been intensive empirical study of the myriad proximate factors, abiotic as well as biotic, that impinge on any population. Their field and laboratory efforts, such as those on thrips and orthopterans by Professor Andrewartha and on beetles and fruitflies by Professor Birch, were the starting points for a more general theory of population ecology that culminates in *The Ecological Web* and emphasizes the complexity of forces affecting any population and the differences among forces acting on different conspecific



populations. These emphases demand a healthy skepticism about simple, elegant descriptions of population dynamics. Professors Andrewartha and Birch have been consistent skeptics, continually confronting fashionable models with hard-won field data on specific organisms.

Their skepticism implies neither hostility to theory nor failure of their own viewpoint to evolve. Thus, *The Ecological Web* consists partly of an ambitious attempt to formulate a general theory of the environment in terms of formal logic. Further, they have always aimed to make their theories applicable not only to academic ecology but also to many environmental problems confronting humanity. The desire to control insect pests of agricultural and stored grain products motivated much of their early research, while recent interests include the ecology of humans and the various environmental problems and resource shortages associated with human population growth. They have publicized their environ-

L. Charles Birch



mental message through the mass media. Professor Birch has also concerned himself for many years with moral and social respon-

sibilities of scientists and the relationship of science to religion.

Professors Andrewartha and Birch are the first Australians to receive the Eminent Ecologist Award. Largely because of their books, Australian systems and Australian ecological research are part of the common vocabulary of ecologists throughout the world. *Thrips imaginis* and *Austroicetes cruciata* are as likely to turn up in American or European population ecology term papers as in Australian ones. The Ecological Society of America is honored to present the Eminent Ecologist Award to the men responsible for this fact.

Written by Daniel Simberloff  
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