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Kormondy, E.J. 1965. *Readings in Ecology*.
Prentice-Hall, Inc. NJ. 219 pp.

INTRODUCTION

It has been said that ecology is as diversified in its scope and meaning as are the diverse Homo sapiens that call themselves ecologists. While this belies the situation, it does intimate the great disparity in orientation and approach to the field. One of the beneficial results of this diversity has been the accumulation of a wealth of data and interpretation providing fertile ground for the development of theory. Among the less salutary consequences of this protean posture has been the judgment that ecology is but a point of view rather than a scientific discipline. An anthology provides an opportunity for different ecologists to react indirectly to that criticism and in so doing to indicate the particular province of nature which they have carved out as their special area of inquiry.

Underlying the varied formulations describing ecology is the theme that it deals with the interactions of organisms and environment. Although Haeckel is usually credited with the event, Reiter appears to have been the first to combine the Greek words oikos (= house) and logos (=study of) to form the term ecology; this was in 1865. It was Haeckel, however, who in 1866 first gave definition to the term as "the body of knowledge concerning the

economy of nature—the investigation of the total relations of the animal to its inorganic and organic environment.”

A few years earlier, in 1859, Geoffroy St. Hilaire had constructed the term ethology to describe “the relations of the organism with the family and society in the aggregate and in the community.” During this same general period, Mivart proposed the term hexicology and ultimately defined it as being “devoted to a study of the relations which exist between organisms and their environment.” Why Haeckel’s (Reiter’s) term superseded the others may be at least partially explained by the stature which Haeckel enjoyed. Neither Mivart nor St. Hilaire had the prestige of position or privilege of such influential colleagues as did Haeckel. In any event, Mivart’s term has been completely eclipsed, but St. Hilaire’s has subsequently become synonymous with the study of animal behavior.

Although the majority of formal definitions of ecology approximate that of Haeckel, emended to include plants as well, some seem to represent more than just a modulation. For example, Charles Elton defined ecology as “scientific natural history” concerned with the “sociology and economics of animals.” Victor Shelford defined ecology as the “science of the community” and Eugene Odum has stated it is “the study of the structure and function of nature.”

Whether any one of these definitions is without ambiguity or adequately delineates ecology’s area of inquiry and its paramount objectives is debatable. Ecology is a field of broad base and its fringes become progressively less capable of precise demarcation. This is at once one of the frustrating obstacles and heuristic dimensions that confronts the ecologist. The reality of this circumstance will become apparent in the following pages.

READINGS IN ECOLOGY
