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THE RESPONSIBILITY OF THE PROFESSIONAL ECOLOGIST IN THE PRESERVATION OF NATURAL AREAS¹

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We are professional ecologists. Though each member of the Academy's Ecology Committee has reservations about his own qualifications in certain aspects of the subject, we are, nevertheless, part of that group of professional scholars to whom our colleagues and the lay public look for guidance and leadership in things ecological.

Over the past decade I have become involved in a number of group efforts characterized by having an ecological or environmental concern. These groups take the form of clubs, societies, committees, councils, commissions, etc., and encompass public and private, local, state, and federal organizations. Many of these groups are composed largely of non-ecologists, but I have been very favorably impressed, especially in recent years, by their deep interest and desire to see corrective action taken in environmental problems. Not the least of these problems is the preservation of at least representative samples of natural and near-natural habitat areas.

Those of us engaged in field work are keenly aware of the continuing degradation and disappearance of our native forests, prairies, rivers, streams, swamps, and bogs. The problem here is an exceedingly difficult one, since what is looked upon as "destruction" by one part of society is considered "progress" by another, and is viewed with confusion by the majority who wish to do what is right and best for man and his environment, both from an ethical and an economic point of view. These people want and need competent help—much of it of the type that only the professional ecologist can provide.

Many voices are being heard in environmental discussions today. Some of the loudest are characterized by immovable positions based on inadequate information. There are the so-called "diligent destroyers" on the one hand and the "irresponsible preservationists" on the other. Please don't misunderstand me. I am quite convinced that we have some who deserve such labels, but thankfully, these individuals and organizations are few in number. Most of society finds itself very realistically between these two extreme positions. Name-calling and mis-labeling, no matter how sincere or warranted this action may be, will most certainly add to our problems rather than solve them.

The non-ecologist, deeply concerned about the welfare of man and his world, desperately needs the help of the professional even though he may not know how to seek aid, what questions to ask, or, sometimes, even that this need exists. We, as teachers of and researchers in ecology, have much of the information needed to solve these problems. We are all painfully aware how incomplete our

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knowledge is, compared to what is needed, but what information we do have needs to be shared so that it can be put to work. There is also a need to let the public at large know what the questions are that we cannot answer, either because the needed facts are outside our field of specialization or, as I've found in many instances, because the necessary research has yet to be done. All of this means we have an obligation to become involved. Our fellow specialists in related fields must also become involved. Unless we make it a point to *participate* in conferences (not merely attend) and to join appropriate action groups (and be heard), we will have few to blame except ourselves if governmental and private agencies and organizations do not operate in accordance with at least basic ecological facts and principles.

Each of us has somewhat different interests and abilities, hence can and should serve in different ways. I want to discuss briefly how the professional ecologist can and should help in the preservation of natural areas.

At the outset, let me stress that in nearly every instance it will be necessary for us to initiate the communication ourselves. One of the better means of learning what is needed is to join one or more of the existing environmental organizations such as the *Audubon Society*, *The Nature Conservancy*, *Sierra Club*, *National Parks and Conservation Association*, and/or *Friends of the Earth*. There are many others, each somewhat different in its orientation and organization. All are in need of ecological expertise in the evaluation of natural areas being considered for preservation.

It is only fair to mention that the image of the academic ecologist is something less than glowing in the eyes of many lay persons now hard at work trying to educate the powers that be without the factual information we could provide. *The Ecological Society of America* founded *The Nature Conservancy* (which unquestionably has preserved more acres than all other such organizations combined), but how much support do the ecologists or their society give *The Nature Conservancy* today? We use the areas they preserve for both research and teaching. Don't we have a debt here? Only recently I heard the academic ecologist described as "hiding behind the shield of pseudo-professional respectability." The idea was that we consider ourselves above membership in so-called "amateur organizations," and that we aren't about to lower ourselves to do the kind of work that is necessary to save an area which is biologically valuable and/or aesthetically pleasing. So far the "little old ladies in tennis shoes" have been carrying the brunt of the load for all of us. Isn't it time we gave them some help?

Another important contribution we can make is to restore a sense of balance to the reasoning process where it has gone astray. To arbitrarily condemn all super-highways, all river impoundments, all stream dredging, and all housing projects is unrealistic in our present circumstances (see Dambach, 1970, p. 201). Some preservationists, however, have lost so often and so much in recent years that they find it difficult to be wholly rational in these matters. On the other hand, some developers are so accustomed to running roughshod over areas having great biological or aesthetic value that they have great difficulty in taking these values into serious consideration. We badly need genuine cooperative long-range planning, not merely for decades or a century or two, but for the indefinite future. We must discern as best we can today what values and opportunities will be desired by future generations. We must carefully study our natural resources to determine what as-yet-unrecognized potential values they may hold. I refer here to our resources of wild plants and animals, as well as other facets of our natural environment whose ecologic and economic importance is as yet virtually uninvestigated. Hopefully, as individuals accustomed to viewing entire ecosystems, and as persons used to making an effort to recognize and to take into account all of the interrelated factors operating in any given situation, perhaps we can tactfully suggest possible alternatives and bring a greater efficiency into such deliberations.

Perhaps the expertise of the ecologist and the ecosystematist *is most needed* to appraise accurately each endangered natural area, an unplowed prairie, an undrained bog, or an unpolluted stream. In this way biological values may be added to the aesthetic and other values in setting priorities for land acquisition and other costly items of preservation. Here is a function which no one but competent specialists can perform. I hope and trust that before long most preservation organizations will have established as standard procedure the careful examination of each proposed natural area by a group of such specialists. This can only improve the standards by which the areas are evaluated and assigned priorities.

Those of us who teach have the obligation of encouraging knowledgeable, responsible, considerate action in these matters on the part of our students. For them to postpone participation in such matters until they are established professionals will be too late in many instances. Many graduate students are more knowledgeable and better able to communicate than are many of those who are now carrying the work forward. The emphasis here must be on having the facts, being responsible for one's words and actions, and being considerate of the opinions of those with different views.

Providing this ecological knowledge is an unusual opportunity to put our ability and experience to work in a cause just as worthy as teaching and research. Here is the opportunity to add a very practical dimension to our all too-academic image and to leave the "ivory tower." Here is the opportunity to serve the greater community of man, both now and for generations to come.

REFERENCE CITED

Dambach, Charles. 1970. The search for environmental quality. Ohio J. Sci. 70(4): 199-201.
