

## PANEL: "THE ROLE AND IMAGE OF THE PROFESSIONAL ECOLOGIST IN THE 70'S"

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Most of you are probably unfamiliar with Environmental Law Societies and may wonder how law students active in these societies could have any sort of a special vantage point in evaluating the role of the professional ecologist. But in terms of the topic at hand, I am sure that I am not alone in identifying as one of the weakest links in the chain of environmental action, the transmission of ecological knowledge or the lack of it from the professional ecologist to the citizen and the legislator. Examples of this informational breakdown can range all the way from the outright suppression of important information within an executive department of government, to the failure on the part of conservation advocates to seek out and present professional research and opinion until it is far too late to reverse the course of a policy decision. Recent legislative attempts to solve this problem such as the National Environmental Policy Act are proving to be no panacea. In a recent address delivered at Stanford, Mr. Malcolm Baldwin, Chief Legal Associate for the Conservation Foundation, commented at some length about the practical impotency of the environmental impact statements filed by government agencies in compliance with NEPA. Again, this ineffectuality is due primarily to the fact that this information surfaces into public view too late. Before commenting further on this informational breakdown and its relation to the role of the professional ecologist as I see it, I would like to tell you a little bit more about Environmental Law Societies.

A little less than two years ago several students at Stanford Law School who were interested in environmental and resource management problems got together and discussed the idea of forming a student organization to sponsor and encourage student work in these areas. We felt that it would be possible to enhance our legal education by working directly with environmental action organizations and their attorneys when appropriate. We hoped to give practical emphasis to the lawyer's role not only as litigator, but as an effective advocate before agencies and political bodies. In theory we viewed ourselves as a kind of legal aid society for environmental organizations, in practice we have taken a much more active role in initiating projects. On occasion members of the Society have assisted lawyers involved, for example, in suits against lead pollution or the support on appeal of county regulation of logging practices. Probably our most successful projects, however, have been primarily student initiated. Last summer the Environmental Law Society applied for and received a Rockefeller Foundation Grant with which it funded a nine-student study of land use and related environmental problems in the city of San Jose. Another summer project sponsored by the Environmental Law Society put five students to work studying selected environmental problems in the San Mateo coastside area. Included in this were studies of the Corps of Engineers proposed Pescadero Creek Project, a study of the problems connected with regulating sewage outfalls off the coast, a study of the powers of Local Agency Formation Commissions in regulating county urban growth, and a most interesting analysis of the increased tax load which new development within the city of Half Moon Bay will impose upon existing residents. These studies were only a starting point for the summer, as these students went on to work closely with local conservation and citizen's organizations in developing and carrying out plans of action. The success of this kind of program has caught on fairly quickly, and I think that now there are more than twenty-five well-established environmental law societies on law school campuses across the country.

Returning to the subject of ecological information, it has been the experience of many of us working through the Society that the professionals in the field have the best grasp of what the problems are, and of what information is available or of what further research needs to be done. The problem is that this information doesn't seem to reach the surface

very easily. The experience and information which should provide the basis for reasoned public debate seems so frequently to become lost among the rhetoric. A friend of mine who worked with me last summer on the San Mateo coastside project spent many days trying to put together a basic overall picture of sewage disposal problems and water quality in the coastside region. He talked with city engineers, county officials, consulted the regional water quality control board and in general accumulated a vast amount of conclusionary and indeterminate information. It was not until he located some unpublished studies done by the Johns Hopkins Marine Station in Pacific Grove, that he could put together a sensible picture of the implications of alternative patterns of coastside sewage disposal. Another member of the Society spent a whole semester putting together a study of the development and political implementation of the peripheral canal concept. He too was trying to discover what alternative policy courses would mean ecologically. Time and again he commented to me that given the substantial ecological imponderables associated with this project that it was absolutely amazing that this project had gone so far without any major systematic attempt to answer these questions. I noticed that later on in your program today there is a session on Sacramento River outflow and striped bass survival. Again this seems evidence of how far projects can proceed in the absence of adequate information regarding their ecological consequences. This doesn't indicate to me merely the limits of scientific knowledge, but rather that there is a severe inadequacy in our institutional structures which fail to provide the incentive for generating the right information at the right time.

I notice that elsewhere on your program there is a discussion being scheduled on the appropriateness of your professional societies adopting or advocating positions on specific issues. I suppose that a discussion of this would involve an eventual attempt to decide how organized wildlife professionals can most effectively exercise their power over resource management policy in the long run. It seems apparent to me that the real power ultimately resides in the information which you are capable of producing. Correspondingly, the effect of this information seems directly proportional to the timely exposure which it receives. For these reasons it seems evident to me that professional societies could best enhance the power inherent in their collective ecological knowledge and practical resource management experience by opposing in an organized, forceful and systematic way the various institutional obstructions to the most effective utilization of the professional ecologists work. Perhaps the most obvious and troubling of these problems is the political pressure to which government employed resource managers seem always subject. The risk inherent in championing a view which happens to be unfavorable to some administration program is too obvious to require further statement. Perhaps this is already being done, but it would seem that the professional societies might provide a protective and relatively invulnerable conduit for information having controversial implications. Why couldn't your societies occasionally act as a sort of early warning system to examine and bring to the attention of various public advocates, imbalances in basic programs of research and the inadequacy or adverse conclusions of present ecological research as it relates to major governmental programs. This might help to catch future ecological monstrosities in the pre-planning stage.

I have heard from people having close familiarity with government resource management agencies that on major source of difficulty is the imbalanced funding of various resource and research programs within a given agency. This can apparently create a tremendous lack of information about certain areas of an agency's responsibility while the rest of its programs continue in full force.

A damaging informational imbalance also seems to exist between the executive and legislative branches of government. The executive of course has ready access to all the information developed by its agencies, while legislators have much greater difficulty in getting a consistent flow of such information. It is possible to conceive of legislation which might propose the establishment of an information gathering and distribution system which might more nearly equalize this imbalance. In this way the lawmakers might be in possession of the same information as that possessed by the incumbent administration.

There may be considerations of which I am unaware, but why shouldn't your professional societies study in some depth these institutional shortcomings which stifle the production and dissemination of basic ecological research, and perhaps make sensible suggestions for legislative reform.

I have already mentioned the dissatisfaction which many are beginning to feel with the procedures developed under the National Environmental Policy Act, and similar State legislation. As you know NEPA requires all Federal agencies to file environmental impact statements which are to evaluate both the short-range and long-range consequences of any major Federal action significantly affecting the environment. These statements are required whether or not the Act requires congressional approval. There seems to be general agreement that these Section 102 statements must be made public. However, it makes a great deal of difference at what stage in the policy making process these statements are released. If this process does not allow adequate time for the preparation and presentation of contrary arguments and debate, then the effect of the National Environmental Policy Act may be purely formalistic.

Finally there seems to be a tremendous need for information about the information generated by professional ecologists. As is perhaps typical of many scientific and academic communities, correspondence and publication within the profession seems to have a rather low profile. To some extent this is probably unavoidable. In many conservation and environmental conflicts however, the burden of effective action falls primarily upon local citizens organizations. I have the feeling that in many instances these individuals have almost no conception of how to find the basic research information with which to make their case effective. They simply do not know it exists. A girl came into our office in the law school last week who had been a primary coordinator of the student efforts in our area to save the birds soaked in the latest oil spill. She holds a masters degree and has for several years been quite active in Bay area environmental action. After talking with her for several minutes I realized that she had probably never heard of organizations like the Wildlife Society and thought that the California Fish and Game Department did nothing but enforce game laws. This tended to reinforce a suspicion of mine that perhaps much of the effectiveness of wildlife conservation efforts is lost due to the parochialism of professional wildlife managers. For reasons which are quite understandable, but none the less regrettable, it seems that the professional wildlife biologist has had public visibility primarily to hunters and fishermen and has not communicated the importance of his role to the broader public having a genuine interest in wildlife.

