

PARTNERSHIP SEEN AS KEY TO APPLIED PARK SCIENCE

The formation of a partnership between management and the scientist is the key to the application of science in the National Parks, according to Donald R. Field, Chief Scientist for the Pacific Northwest Region, in a talk before the First Biennial Conference of Research in California National Parks, held in September 1982 on the Davis campus, University of California.

"My experience suggests," he said, "that it is not so much the content or subject area of research that ensures integration into the decision making process as it is the manner in which the research is undertaken and communicated to park management."

The responsibility for defining a research agenda, Field said, lies with the management of the National Park Service. That research agenda emerges from the Resource Management Plan. He described the limitations of science to solve all management problems and the constraints of management to incorporate science into the decision making process.

Research plan formation has been structured to include scientists and managers as partners, and this interaction extends into establishment of the specific research question. The need at this second stage is to pose the research question in such a way that it *can* be answered by research, and to establish the *need*

for that research (instead of, say, a literature search, which might be sufficient.)

A third important step is agreement between scientist and manager as to what the research can be expected to produce. At this stage, three issues still need to be mutually resolved: the timing and pacing of the research activity, the selection of variables, and the actual research design (which often must reflect a compromise with the *ideal* research model.)

Even negotiation of all these potential pitfalls does not insure success. "A critical period of uncertainty," Field pointed out, "is the end of a field season, before the first interim report. Communication at this stage," he emphasized, "enhances credibility, confidence, and support for the project."

The final report for management should be prepared with management's needs firmly in mind. Does the research provide a practical solution? Is it to be used in the public involvement process? Will it go into the preparation of an environmental or a social impact assessment? Will the scientist be expected to testify in a court of law or represent the agency at a public hearing? Executive summaries and action documents detailing implications and alternatives, Field noted, are essential for management action plans.

STEPS IN THE COMMUNICATION OF SCIENCE TO RESOURCE MANAGERS

