An international cooperative attack on world productivity would yield information on the relative value of biological communities to mankind, and would point out measures which might be taken to increase food production. This program would provide world political and economic leaders with the knowledge essential to a meaningful attack on the population-sustenance crisis.

Neither the Federal agencies nor the academic scientific community functioning alone can draw on the maximum problem-solving capabilities of the United States. Potentially, IBP could bring these two groups together. Outstanding investigators concerned with basic scientific questions might be induced for short periods to work on their particular specialties within the larger context of pressing problems, working together with personnel of existing mission-oriented Federal laboratories and utilizing the superior facilities and equipment at the installations. This creative interplay of groups on IBP problems may suggest ways of making our problem-solving arrays more powerful.

With the identification of intra-mural programs within Federal laboratories, and with the formulation of IBP research proposals by the scientific community-at-large, a sound U.S. IBP program can be expected to develop.

Dr. REVELLE. I think the same thing is true of Dr. Smith. May we have permission to insert his statement in the record also?

Mr. DADDARIO. The record will remain open for a reasonable period of time for statements or for any additions you would like to submit.

(The prepared statement submitted by Dr. Smith is as follows:)

PREPARED STATEMENT OF DR. FREDERICK E. SMITH, SCHOOL OF NATURAL RESOURCES, UNIVERSITY OF MICHIGAN

THE UNIVERSITY OF MICHIGAN,
SCHOOL OF NATURAL RESOURCES,
DEPARTMENT OF WILDLIFE AND FISHERIES,
Ann Arbor, Mich., May 11, 1967.

To: Committee on Science and Astronautics, U.S. House of Representatives.

Attached are portions of two reports on trends in ecology. The first, 4/15/65, is a part of the summary report by the Ecological Study Committee to the Ecological Society of America. The second, 5/5/67, is a part of the first (rough) draft of a report on ecology to be a chapter in the summary of Research in the Life Sciences sponsored by the National Academy of Sciences.

These reports reflect nation-wide excitement among ecologists over the rapidly growing feasibility of powerful, large-scale, complex studies. This new potential results from several factors: technological advances in equipment, especially in meterology and in physicology, better-trained ecologists and more of them, the availability of high-speed computers, and the rapid development of systems analysis and related techniques. For the first time, the complexity of analysis in ecology can approach the complexity of the system under study.

The major U.S. programs in the IBP are implicit in these reports. The IBP, however, has focussed on studies that require extensive coordination and team effort. Such studies would otherwise be slow to develop, despite their immediate relevance to human welfare, because ecologists have tended to avoid team research.

Support for the IBP is growing throughout the profession, and now includes many of the best minds available. Every week more investigators ask to participate. Most of these are keenly aware of the test that is being made of the team approach in ecology.

Also attached is an address to the National Research Council, 3/13/67, on the expected effect of the IBP upon Ecology.

Respectfully submitted.

FREDERICK E. SMITH, *Professor.*

FROM THE SUMMARY REPORT OF THE ECOLOGICAL STUDY COMMITTEE (PREPARED BY R. S. MILLER) TO THE ECOLOGICAL SOCIETY OF AMERICA

RECOMMENDATIONS

The following tentative recommendations are based on the Study Committee's "Interim Report" submitted December 18, 1964 and subsequent discussions of the report at the Study Committee meeting January 23–25, 1965: