

Announcing a Systematics Priorities Initiative

SYSTEMATICS AGENDA 2000: INTEGRATING BIOLOGICAL DIVERSITY AND SOCIETAL NEEDS

The American Society of Plant Taxonomists, the Society of Systematic Biologists, and the Willi Hennig Society have formed a steering committee to organize an initiative to document research trends and priorities within systematics, to be called **Systematics Agenda 2000: Integrating Biological Diversity and Societal Needs**. Systematics Agenda 2000 will have as its major themes the role of systematics in the analysis of biodiversity, the integrative role of systematics in comparative biology, and the importance of systematics in human affairs.

The initiative is charged with 1) identifying important research trends and questions and with establishing priorities among them, 2) assessing the status of current infrastructures supporting systematics research and evaluating future needs, 3) documenting the broad role that systematics plays in human affairs and evaluating its future contributions and needs in those endeavors.

For many years the systematics community has failed to speak with a unified voice and define the future of its discipline. There is a critical need for systematists to come together, document the importance of systematic biology, and describe its agenda for the next decade. Budgetary constraints are placing intense pressures on scientists to identify their disciplinary and funding priorities. Other disciplines, most recently the ecologists, with their *Sustainable Biosphere Initiative* (Ecology 72:371-412, 1991), and astronomers, with *The Decade of Discovery in Astronomy and Astrophysics* (see Science 251:1412-1413, 1429-1430; 1991), have undertaken such evaluations, and these are having a significant impact on policy makers, not only within the National Science Foundation but other sectors of the government as well.

Systematics faces additional challenges. Because the discipline has not been unified, the promotion of systematics has suffered with respect to funding of systematic research as well as in career opportunities at universities and public institutions. The importance of systematics has been underappreciated, and its intellectual vigor over the last decade, while growing more influential within evolutionary biology in general, has not had a sufficient impact on biology as a whole. A major goal of the initiative is to address these issues. Just as importantly, it is critical that the systematic community join with other disciplines, particularly with the ecological sciences, to initiate co-ordinated efforts that can lead to solutions to the problems of environmental deterioration and the global loss of biodiversity.

ORGANIZATION OF SYSTEMATICS AGENDA 2000

To undertake a comprehensive survey of the discipline of systematics, the Steering Committee, in consultation with a number of other systematists, has established a series of standing committees. Each committee will have two co-chairpersons and its membership will be appointed by the co-chairpersons and the Steering Committee. Each committee has the responsibility to produce a report addressing a general set of questions directed to research trends and priorities within systematics in general, as well as a more narrowly circumscribed series of questions restricted to the specific subject matter of the committee.

The Steering Committee and the co-chairpersons plan to assemble committee reports and summarize their findings in a document which will have as its audience professional systematists as well as governmental agencies whose mission it is to support systematic research. In addition, material contained in that document will serve as the basis for one or more additional documents whose primary focus will be to educate those in policy making positions, including elected governmental officials, university administrators, as well as the general public about the significance and role of systematics within biology and human affairs. It is anticipated that a first draft of the document reflecting the deliberations of the committees will be completed by late 1992.

CHARGE TO THE COMMITTEES

Each committee is being asked to provide information that will eventually be required for preparing documents that integrate across the discipline. To facilitate this goal, the Steering Committee has prepared a list of general questions for each committee. It is important to emphasize, however, that these will not be the only questions and issues that the committees will be investigating. Each committee is being asked to look to the future and attempt to define the content, importance, and needs of the discipline a decade from now. Some general questions being addressed by each committee include:

What are the key research topics or needs relevant to the subject of your committee?

What are the most important research questions that can be identified for each of these research topics?

Can you establish a series of research priorities based on the research topics and questions that you have identified? What criteria have you used to establish these priorities?

Can you relate the topics, questions, and priorities you have identified to the major themes of Systematics Agenda 2000, namely, the study and preservation of biodiversity, the central position of systematics within comparative biology, and the role of systematics in human affairs?

What is the significance of the research topics and questions you have identified within the larger framework of systematics as a whole?

Can you identify the major governmental or non-governmental agencies or organizations that provide financial support for the research topics and questions you have identified?

How do you perceive the adequacy of funding with respect to the needs for the future, and how do you relate the priorities you have identified with the expected limitations on funding for systematic research?

Can you identify any anticipated major funding needs developing within the next decade with respect to new technologies, new infrastructures to support research, or new initiatives to enlarge our systematic data base?

Can you document for us the role that systematics plays within the field of interest of your committee? Can you provide specific examples where systematic research has played a crucial role (some "key exemplars") in an applied area that would be understandable by the general public?

Can you document the extent to which systematists engaged in applied research make use of systematic collections, data bases, etc.?

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A CALL FOR PARTICIPATION

In order that **Systematics Agenda 2000** achieves the broadest participation possible from the systematic community, we invite any systematist, who may have comments to make on the questions and issues raised above, to contact the co-chairpersons of the standing committees in which one is interested.