

of which are and always have been available to scholars in the United States.

4) All that is said concerning my negotiations with J. Robert Oppenheimer is incorrect and misleading.

5) The statement about the estate's alleged "arguing" about the ending of Stachel's editorship seems to imply that the estate attempted to misconstrue the arrangements made and signed by Princeton University Press, the estate, and Stachel in February 1978. This is completely incorrect. The best witness to this fact is Bailey, who under oath confirmed several times that the February arrangement "terminated" Stachel's editorial services as of 14 July 1979.

6) The article quotes verbatim, and without any proof or commentary, the following insulting statement by Nathan Reingold of the Smithsonian Institution: "Nathan has created a serious problem for open and objective use of the material. Unless that *grip* [emphasis added] is relaxed, there will be no edition on a satisfactory basis." Reingold and I have never met, nor has there ever been any communication between us. His deep insight into my betrayal of Einstein can only come from Princeton.

OTTO NATHAN

*Executor and Trustee,
Estate of Albert Einstein,
24 Fifth Avenue, New York 10011*

Conservation of Tropical Forests

We wish to call attention to a global problem in which scientists, especially biologists, have a more than ordinary personal stake and at the same time are in a good position to contribute significantly to a solution.

We refer to the silent crisis of our time: species extinction. Because of the degradation of natural environments by humans, the rate of species extinction is far greater now than in any recent period in geological history and is accelerating. In the next quarter-century as many as a million species may be eliminated and countless others may be reduced to perilously low populations in degraded marginal habitats. The principal locale of this decimation is the tropical lowland forests. Of the 3 million to 10 million kinds of organisms estimated by systematists to exist, two-thirds or more are limited to the tropics; most of these are forest-dwelling, and a large percentage are found only on particular mountains, islands, riverbanks, and other strictly limited habitats.

Unfortunately, it is the species-rich

tropical forests that are also under the greatest pressure from humanity. A hundred years ago the evergreen tropical lowland forests occupied an area about twice the size of Europe. They have now been reduced to approximately the size of the continent of Europe. Each year an additional area roughly equivalent to Great Britain is clear-cut or degraded to some lesser degree that nevertheless reduces species and genetic diversity. At the same time that systematists are proceeding with the discovery and characterization of the remaining millions of species (the total cataloged to date is about 1.5 million), they are witnessing the disappearance of a large percentage of the objects of their study, mostly in tropical forests.

Species diversity is a great treasure house where riches have not yet been closely examined, much less used by humanity. Among the still largely unknown millions of species are vast potential sources of new foods and pharmaceutical and other natural products, agents of nitrogen fixation and soil reclamation, defenses against insect pests, and, not least, objects of beauty, enchantment, and wonder.

The biota of each country is no less part of its heritage than its art and history. If treated with skill and care, it can be preserved and contribute to the well-being of the nation. And this is where the responsibility and self-interest of scientists enter. The potential of the tropical biota can be realized only by scientific research. To an increasing degree biologists in particular will extend their activities into the tropics in search of phenomena for basic research but even more to assist the developing nations, whose most compelling needs are, at least in part, biological rather than military or political in nature. But it appears that when this shift begins, many of the best opportunities will have already slipped away. Extinction is indeed forever: it is possible that of all the follies being committed in our lifetime, the reduction of genetic and species diversity by the destruction of tropical habitats will be most injurious to future generations.

We therefore urge that scientists, and especially biologists, assume a greater responsibility for tropical conservation. One of the most effective roles for individuals and small groups is the identification of specific tracts of land or aquatic systems that are rich in species but imperiled by development. A pinpoint conservation movement, ranging from an expert assessment of the quality of the biota to fund raising, could prove exceptionally effective.

As a case in point, we call attention to the current effort by the Organization for Tropical Studies, Inc., a consortium of 23 universities in the United States and 3 in Costa Rica, to purchase a 1500-acre tract adjacent to its 2000-acre lowland rainforest preserve, Finca La Selva. Recently, the National Academy of Sciences-National Research Council Committee on Research Priorities in Tropical Biology selected La Selva as one of the four primary sites in the world for detailed studies of tropical ecosystems. The proposed addition, the "Vargas property," would serve as a much-needed buffer to La Selva and a site for large-scale ecosystem research. Its purchase is also expected to promote the establishment of the nearby Parque Nacional Braulio Carrillo by Costa Rica, a country whose conservation program has already been exemplary.

The Organization for Tropical Studies has an option to purchase the Vargas property for \$400,000. It has committed \$50,000 of its own funds and secured grants and pledges of \$150,000 from foundations, organizations, and individuals. The remaining \$200,000 must be raised by the end of 1982. Each of the undersigned has pledged \$1000 from his personal funds, in recognition of the special importance this effort has for future scientific work as well as conservation of the tropical biota. We hope that others will wish to make gifts, of whatever size; these may be sent to: Donald E. Stone, Executive Director, Organization for Tropical Studies, Inc., P.O. Box DM, Duke Station, Durham, North Carolina 27706.

THOMAS EISNER

HANS EISNER

JERROLD MEINWALD

CARL SAGAN

CHARLES WALCOTT

*Cornell University,
Ithaca, New York 14850*

ERNST MAYR

EDWARD O. WILSON

*Harvard University,
Cambridge, Massachusetts 02138*

PETER H. RAVEN

*Missouri Botanical Gardens,
St. Louis 63166*

ANNE EHRLICH

PAUL R. EHRLICH

*Stanford University,
Stanford, California 94305*

ARCHIE CARR

University of Florida, Gainesville 32601

EUGENE P. ODUM

University of Georgia, Athens 30601

CARL GANS

*University of Michigan,
Ann Arbor 48104*