

*Distinguished Ecologist Commentary*  
**Thoughts and suggestions for tropical ecology**

HELMUT LIETH  
*USF, University of Osnabrueck, Germany*

Dear fellow tropical ecologists:

I have had the privilege of working with you, and for you, for some time in the past. You were kind enough to present a “Festschrift” for me some time ago. Some of my friends and former students were kind enough to contribute to it and remind me about the hectic but successful time we had during the development of an environmental modelling group, a new botanical garden for the university and city of Osnabrueck, and above all the European-wide project for research on the sustainable utilization of halophytes. The latter was a logical development from the decade-long primary productivity research which I had undertaken, much of it in close contact with my friends in Varanasi. It was from the results of these studies that I learned about the high production levels of saline systems and the possibility of managing mangroves and tropical salt marshes on a sustainable basis.

During this time we witnessed tremendous developments and new research opportunities for ecologists. We were involved in trying new possibilities for satellite remote sensing, for routine multi-element analyses, for computer based data handling, and last but not least the use of internet facilities. All this has changed the procedures and goals of ecology to a great extent. Whereas in the past we had mainly field data assessments as the main objective, we now have the possibility of going further with our functional analyses. Now, we can also cooperate successfully with our colleagues in global climate modelling, in ecotoxicology, in environmental protection, and in human health.

It became clear in our time, that the International Biological Program (IBP) of UNESCO and ICSU had brought ecology into the realm of “Big Science”, a move that was dearly needed in light of the rapid growth of mankind combined with accelerating industrialization.

In the light of these developments, I may be allowed to make suggestions for topics which some papers in this journal should cover in the future.

These suggestions should be taken by University and College teachers to stimulate their students to expand their field work as much as possible:

- in the direction of chemical and physical analyses,
- with the objective of entering their field study results into computer models,
- to find new ways to preserve and/or to improve our environment,
- and to find new strategies for the utilization of presently unproductive desert lands.

Indian ecologists especially are called upon to help in improving landscape management, agriculture, forestry, and aquaculture. The recent occurrence of the tsunami presents great challenges for ecologists. Shoreline protection and wise management of the seacoast are fields in which a combination of maritime ecology and saline systems ecology may find new approaches for sustainable management in tropical regions. Our recent research has shown that land based fish farming using ocean fishes may be much more profitable than fishing in the oceans in the traditional way. Sustainable fish farming systems are possible even in deserts as our first models have shown.

The more I read about and discuss options for ecological research the more I am convinced that our profession must use the inputs from all other sciences and develop from them sustainable management options for the generations to come.

I thank the subscribers of this journal again for the help they provided to me and wish you all success in your future research.

With kind regards,

Helmut Lieth

*Past President, International Society for Tropical Ecology.*

**Helmut Lieth**

Professor Lieth has been active as botanist and ecologist for over 50 years, from his time as a student at the University of Cologne in the late 1940s and early 1950s, and then over subsequent decades as a

prominent and internationally recognized researcher and scholar with institutional and programmatic involvements in well over a dozen countries. His primary academic affiliations were with the Agricultural University, Stuttgart-Hohenheim (1955-1966), the University of North Carolina at Chapel Hill, North Carolina (1967-1977), and the University of Osnabrueck (1977-2001). However, throughout his career he has been an invited guest professor and scientist at many other institutions, including several in the tropics of South Asia, South America, and the Pacific. He has also held leadership positions in a variety of important programs, such as the

International Biological Program of UNESCO, and has served as an elected officer for several organizations, most recently as President of the International Society for Tropical Ecology. In 2004, a special issue of *Tropical Ecology* (Vol. 45, No. 1) was published in honor of Dr. Lieth's long record of professional accomplishment. More detail on his activities and accomplishments, his many scientific publications, and his important role in bringing together scientists from different countries and disciplines to work together in productive, collaborative efforts, can be found in that issue.