

Shaking Hands With The Great Limnologist—Gene E. Likens

On Nov. 6, 2009, the Jinan* University (Guangzhou, China) conferred Honorary Professorship to Prof. Gene E. Likens (Founding Director and President Emeritus of the Institute of Ecosystem Studies, Millbrook NY, USA) at a solemn ceremony held at the Science Hall at the campus of the University. In addition to the President of the Jinan University, Prof. Hu Jun., more than 350 scientists, research scholars, students, and the Heads of the Office of the International Affairs and Science and Technology Research Department of the University attended the ceremony. Two senior guests scientists from abroad, Prof. Henri I. Dumont (University of Gent, Belgium), and one of the undersigned Dr. Ramesh D. Gulati (the Netherlands Institute for Ecology, Nieuwersluis, The Netherlands) were also present at the ceremony.

The ceremony was hosted by Prof. Yuan-Ming Zhang, the Dean of College of Life Science and Technology, of the Jinan University. Prof. Jun Hu delivered the welcome address, and Prof. Bo-Ping Han (Head, Institute of Hydrobiology) gave a brief introduction to the research interests, experiences and life-time academic achievements of Prof. Likens. The Vice President of Jinan University, Prof. Jie-Sheng Liu, announced the decision to confer the title of Honorary Professor of Jinan University to Prof. Gene E. Likens. Prof. Jun Hu awarded the 'Certificate' of Honorary Professorship Title to Prof. Gene E. Likens. Prof. Likens replied by thanking the University for honoring him and gave a talk entitled "*Limnology: The Queen of Natural Sciences – its Role in Understanding Water Resource Protection and Use*". In his lecture, he reminded the audience about the major changes taking place on our planet Earth: population explosion, CO₂ increase in the atmosphere and a great increase in energy use. It is the human beings that accelerate environmental changes and that the global environmental problems such as global warming, acid rain, and eutrophication, cannot be solved in piecemeal, because everything is connected to everything else. Therefore, the environmental problem should be solved at the ecosystem level or watershed scale, i.e. through an holistic approach. In this regard he gave some excellent examples of how Air-Land-Water Interactions make piecemeal solutions impossible.

Prof. Gene E. Likens, the former chairman of American Society for Oceanography and Limnology (1976 - 1977), Ecological Society of America, ESA (1981 - 1982) and of the International Society of Limnology, SIL (2001 - 2007), is among the foremost and famous limnologists/ecologists in the world. He has received many national and international awards and honors. In 2006, Prof. Likens was elected a member of the American Philosophical Society, having previously been elected to the National Academy of Sciences (1981) and the American Academy of Arts and Sciences (1979). He was a co-recipient, with his long-term collaborator, Dr. F. H. Bormann, of the 2003 Blue Planet Prize for outstanding scientific research that helps to solve global environmental problems. The Blue Planet Prize is recognized as the environmental equivalent of the Nobel Prize in Ecology. In 2002 Dr. Likens was awarded the 2001 National Medal of Science, the nation's highest science honor, for his outstanding contributions to the field of ecology. He has published more than 400 research papers in international scientific journals,

including 36 papers in *Science* and *Nature*, and nine textbooks including *An Ecosystem Approach to Aquatic Ecology: Mirror Lake and Its Environment* and *Encyclopedia on Inland Waters* (3 Volumes; Academic, Publishers). The main research fields covered by Dr. Liken's works include long-term ecosystem studies on lakes and rivers, including, hydrobiology, limnology and freshwater ecology and environmental sciences.

Eutrophication as in many other developing countries and global warming are the main water quality concerns in China. The country has been experiencing serious problems relating to water shortages, water quality and ecosystem degradation due to nutrient enrichments from the catchment and direct discharges. Prof. Gene E. Likens who is an highly experienced scientist in research and education in the field of watershed and acid-rain research, stressed the need for paying more attention to such problems in near future.

So, shaking hands with the great limnologist—Gene E. Likens, was a lifetime experience for us. A further exchange of ideas and information and cooperation will greatly benefit limnologists, environmental ecologist in both China and the United States.

Some of the representative papers of Prof. Gene E. Likens and his colleagues:

- Likens, G. E. and F. H. Bormann. 1974. Acid rain: a serious regional environmental problem. *Science* 184(4142):1176-1179.
- Likens, G. E., F. H. Bormann, R. S. Pierce and W. A. Reiners. 1978. Recovery of a deforested ecosystem. *Science* 199:492-496.
- Likens, G. E. (ed.). 1985. *An Ecosystem Approach to Aquatic Ecology: Mirror Lake and its Environment*. Springer-Verlag New York Inc. 516 pp.
- Likens, G. E. 1992. *The Ecosystem Approach: Its Use and Abuse*. Excellence in Ecology, Book 3. Ecology Institute, Oldendorf-Luhe, Germany. 166 pp.
- Likens, G. E., C. T. Driscoll and D. C. Buso. 1996. Long-term effects of acid rain: response and recovery of a forest ecosystem. *Science* 272:244-246.
- Likens, G. E., S. L. Tartowski, T. W. Berger, D. G. Richey, C. T. Driscoll, H. G. Frank and A. Klein. 1997. Transport and fate of trifluoroacetate in upland forest and wetland ecosystems. *Proc. National Academy of Sciences* 94:4499-4503.
- Larison, J. R., G. E. Likens, J. W. Fitzpatrick and J. G. Crock. 2000. Cadmium toxicity among wildlife in the Colorado Rocky Mountains. *Nature* 406:181-183.
- Likens, G. E. 2004. Some perspectives on long-term biogeochemical research from the Hubbard Brook Ecosystem Study. *Ecology* 85(9):2355-2362.
- Likens, G. E. and D. C. Buso. 2006. Variation in streamwater chemistry throughout the Hubbard Brook Valley. *Biogeochemistry* 78:1-30.

* The Jinan University, Guangzhou, is one of the oldest universities and one of the “211” key national universities in China. It is famous for its overseas students. Currently there are about 34,000 students studying at this university, including 13500 students from abroad. Hydrobiology, is one of the main study and research subjects at the university. The research in limnology, comprises studies on lake and reservoir ecology, and river and wetland ecology.



Prof. Jun Hu President of the Jinan University awarded the 'Certificate' of Honorary Professorship Title to Prof. Gene E. Likens.

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