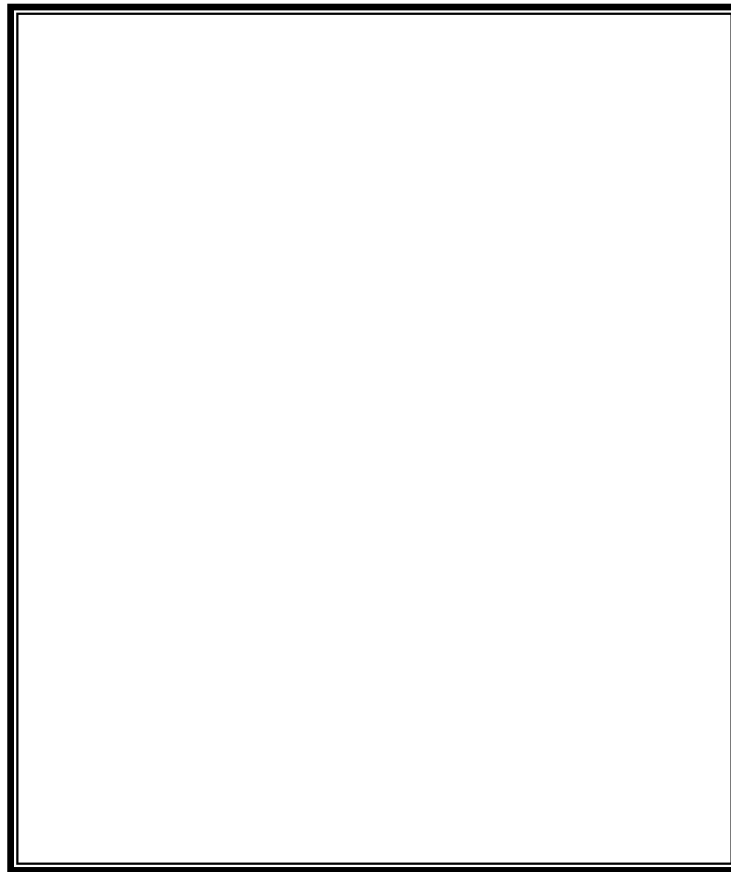


***Distinguished Ecologist Commentary***

**The life and career of Frank B. Golley (1930-2006) and his role in awakening north american ecology to the international realm**



**Prof. Frank B. Golley**

On October 8, 2006, Dr. Frank Golley, past-President of ISTE, the ecologist who brought North American ecology into the international realm, passed away. Up until the 1960s, American ecology was insular. The U.S. had ecologists who shaped the direction of American Ecology – such figures as Cowles, Clements, and Gleason who focused on plant communities, and Lotka and Volterra who dealt with animal populations. But what American

ecology did not have was an international perspective. For example, the name Alexander von Humboldt, whose pioneering descriptions in 1804 of the landscape ecology of Ecuador, was virtually unknown in the early 20<sup>th</sup> century ecological literature.

I don't know whether Frank realized the narrow scope of American ecology and decided to do something about it, or whether his invitations to lecture, consult, and do research

in Europe, Asia, South America and Africa were merely coincidental. I do know that after a decade of many international trips, he saw that American ecology had been quite parochial, and he felt that broadening the awareness of all ecologists would be of benefit both academically and environmentally. In the late 1960's there was an increasing awareness of tropical deforestation, but there was little understanding of the ecological consequences of turning rain forests into pastures, or disturbing them in other ways. One particular project was particularly influential for Frank. He led a team to evaluate the ecological consequences of using thermonuclear devices to blast a new canal across the Darien isthmus of Panama (the consequences, they predicted, would be disastrous). So in 1973, Frank organized a conference in Costa Rica that called together many international tropical researchers to evaluate what was known and unknown about tropical ecology, and to formulate questions that could guide future tropical research. The title of the conference, as well as the proceedings of the conference was "Fragile Ecosystems". The title was chosen because there was an idea that disturbance to tropical ecosystems had a more severe and longer lasting impact than disturbances to ecosystems at higher latitudes. Some ecologists agreed, and others did not. But the conference did lead to initiatives that explored in much more detail the structure and function of tropical systems. Now, more than three decades later, evidence suggests that in fact, they *are* more fragile – there are more species interactions in tropical ecosystems, meaning that eliminating one species causes a high probability of extinction cascading through the ecosystem; the soils in the lowland tropics, because they are old geologically, are less able to maintain primary production, once the soil organic matter has been destroyed through agriculture or cattle production.

Dr. Golley's influence, however, was not restricted to the tropics. In Greece, he assisted with planning a school of natural resources. In Spain, he was involved in agroecology and rural planning. He participated in a project on city greenness in Japan. For many years he made annual visits to the Insitututo Agronomico

Mediterraneo to teach rural planning and agroecology. I remember many of the stories he told about his "cultural learning" in India, particularly when he was President of the International Society of Tropical Ecology (1976-1983). I also remember a conference in Kuala Lumpur where there was cultural learning in reverse – participants in the congress were invited to the podium to give a demonstration of the culture of their native land. Frank got up and gave a demonstration of hog calling in Arkansas. As President of the Ecological Society of America and the International Association of Ecology, Frank was able to contribute substantially to development of international understanding of environmental issues. As grants officer for several years at the U.S. National Science Foundation, he was able to facilitate international projects.

But International work did not mean he neglected the students at his home Institution, the Institute of Ecology at the University of Georgia (In 2006, the Institute became a stand-alone school on the Univ. of Georgia Campus). The interests of Frank's students spanned many scales – from one student who studied the succession of invertebrates under a log on his farm, to a landscape ecologist who was elected to the National Academy of Science. The Institute has been widely recognized for its graduate program in Ecology, but Frank was the one who initiated its undergraduate program in Ecology. There was a characteristic in many undergraduate students that particularly concerned Frank. They often lacked map-reading skills, and sometimes did not even know which direction was North. He worked hard to correct this deficiency, and in recognition of this effort, he will be remembered by a compass rose with his name in the center, planted in the patio of the Institute of Ecology. He also was influential in introducing undergraduates to the concept of Environmental Ethics through the establishment of a certificate program. It is a program that draws in students from all the departments on campus, from history to microbiology, and gives them a perspective on how their particular interest fits into the overall theme of environmental sustainability.

The Institute of Ecology building has officially been named the “Golley Building”, in honor of Frank who had a major influence in its funding and its design. In contrast to most campus buildings that seem to be built to isolate professors from students, the Institute was designed to facilitate interaction, with glass walls, open areas, sky-lit conference rooms, a lobby that hosts art exhibits, and many niches where informal meetings can easily take place. All of us who have lived there will testify to its effectiveness.

Frank’s interest in agroecology dated to his bachelor’s degree in agriculture from Purdue University (his advanced degrees were in wildlife

management from Washington State and zoology from Michigan State). After many conversations with Frank about the shortsightedness of American Agriculture, he insisted that I read “Plowman’s Folly” by Edward Faulkner. It was Frank’s influence that led to the establishment of an “Agroecology Laboratory” at the Institute of Ecology.

Of all the things Frank has accomplished, including books on the history of the ecosystem concept, he will probably be best remembered as the ecologist who brought an international perspective to American ecology, and who introduced the ecosystem approach to much of the rest of the world. His legacy is the

#### **Carl. F. Jordan**

Dr. Carl F. Jordan is a Senior Ecologist at the Institute of Ecology, University of Georgia. He met Dr. Golley during the International Biological Program in the 1960s and over the period 1974-2006 had an adjacent office in the Institute of Ecology. Dr. Jordan, who received his Ph.D. from Rutgers, has authored numerous seminal papers in the field of ecology, many of which relate directly or indirectly to the Tropics. His current research interests include sustainable management of natural resources, organic agriculture, and agroforestry.

transformation of modern ecology into an international science.

**Carl. F. Jordan**  
*Institute of Ecology*  
*University of Georgia*  
*Athens, USA*