

THE WETLAND ENVIRONMENT: THE BIOGEOCHEMISTRY OF INLAND AND COASTAL SYSTEMS

Kimberly A. Gray
University of Notre Dame
Notre Dame, Indiana 46556

Wetlands are complex ecological systems which combine the characteristics of both terrestrial and aquatic environments. Wetlands play an important role in hydrological, chemical, and biological cycles, and, through covering approximately 6% of the earth's land surface, they are also a major feature of the landscape. Historically, however, the processes of urban, agricultural, and industrial development have resulted in the extensive destruction of wetlands, and, until recently, the critical value of wetlands to both human populations and natural systems was not fully recognized. In this presentation, the various types of wetlands that appear on every continent except Antarctica will be discussed, and an in-depth discussion of the types of wetlands found in Indiana will be provided. A general picture will be developed of the biogeochemistry of some representative inland and coastal systems. The benefits to society of preserving the environmental integrity of these wetland ecosystems and some of the dangers accompanying wetland destruction will be highlighted. Time allowing, some mention will be made of the variety of wetlands research projects (ranging from work in the mangrove swamps of India, in the marshes of the Florida Everglades, and in artificial wetlands in southern California) on which the speaker has participated.

