



INTRODUCTION TO ECOSYSTEM MANAGEMENT IN TEXAS

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Professor Aldo Leopold, the father of game management, recognized the concept and need for ecosystem management decades ago. What is an ecosystem, anyway? One source defines ecosystem as ***living organisms interacting with each other and with their physical environment, usually described as an area for which it is meaningful to address these interrelationships.***

What is a "meaningful area" in Texas for discussion of an ecosystem? We have ten (10) distinctive areas known as ecological regions (***ecoregions***). An ecoregion is defined as a ***continuous geographic area over which the macroclimate is sufficiently uniform to permit development of similar ecosystems on sites with similar properties (i.e. soils and topography).***

Humans influence and are influenced by ecosystems. Today, humans are an integral part of ecosystems and are fully dependent on them for their well being. Therefore, ecosystem management must include consideration of the physical, emotional, mental, spiritual, social, cultural, and economic well-being of people and communities.

An ***ecological approach*** to natural resource management insures consideration of the relationship among all organisms (including humans) and their environment.

Therefore, we define ***ecosystem management*** as the use of an ecological approach that blends social, physical, economic, and biological needs and values to assure productive and healthy ecosystems.

Other important definitions:

- ***Wildlife conservation*** is defined as wise use and management of wildlife and interrelated resources.
- ***Stewardship*** is defined as caring for land and resources to pass on healthy ecosystems to future generations.
- ***Natural disturbance*** is defined as periodic impact of natural events such as fire, severe drought, insect or disease attack, or wind.
- ***Sustainability*** is the ability of an ecosystem to maintain ecological processes, functions, diversity, and productivity over time.

*(Material adapted from **An Ecological Basis for Ecosystem Management**, General Technical Report RM-246, by Rocky Mountain Forest & Range Experiment Station, USDA Forest Service @ Fort Collins, Colorado 80526)*