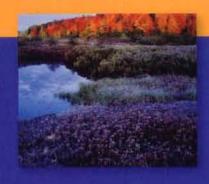


#### ECOLOGY: Concepts and Applications 5th edition

#### About the Cover

Where distinctive ecosystems meet, environmental conditions-including soils and water availability—can change substantially over small distances. Reflecting those environmental changes, the kinds of plants and animals also change, with each species generally living within a restricted range of conditions. The cover shows a landscape that includes a forest dominated by deciduous trees in fall colors, a band of shrubs, and a pond, with



wetland plants along its shores. Each of these patches in the landscape, with its own characteristic, dominant plant growth forms, supports a distinctive community of birds, small mammals, insects, and other invertebrate animals. Consequently, transition zones, such as this one, are often areas rich in biodiversity.

The heterogeneous landscape shown on the cover is the result of dynamic processes that have gone on for millennia. Soils have built up under the forest and shrub communities, which have been periodically disrupted by severe weather and outbreaks of insect pests. Erosion has moved inorganic and organic materials down the slope where they have been deposited in and around the pond. Meanwhile, forest birds and mammals feeding around the pond have carried inorganic and organic materials back up the slope to the forest. Many of these changes are recorded in the pond sediments and forest soils, which trained scientists read much like we read the pages of this book.

Studies of the relationships between organisms and the environment make up the science we call ecology. This book was written to introduce this complex and fascinating discipline and to provide a conceptual foundation that will prepare the reader to look out onto a landscape, and see the broad outlines of the intricate connections that weave all living beings and their environments on this planet into a vast web of ecological interactions.

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