

PART

5

ENERGY FLUX AND THE ECOLOGICAL ORGANIZATION OF MATTER

Discussions of weather and food must ultimately be synthesized into a dynamic energy exchange for an organism if the fundamental life processes that permit survival and production are to be understood. This is true for an individual, and when a collection of individuals is regarded as a community, the community assumes a degree of organization that is regulated by basic energy flow plus the added behavioral interactions that are superimposed on the energy framework. Much can be said about basic energy exchange because of the recent interest in this approach to ecology. Given this background information for the organism, there is a rich potential for analytical studies of plant and animal communities. This part of the book includes fairly detailed descriptions of the energy relationships of an individual, with insights into the factors affecting the organization of communities.