by Joseph Cascio

McDougall defines plant ecology as the science of the interrelations of plants and their environments, a part of general or bio-ecology, which deals with the interrelations of all living things and their environments. Therefore, a complete study of plant ecology must include consideration of animal ecology because plant and animal ecologies are parts of the total ecological system and are interrelated. Oosting’s Plant Communities tells us that plants depend on animals to provide carbon dioxide, transport seeds and natural fertilizers, and alter the soil structure and chemistry. Animals in turn depend on certain plants for the production of food, oxygen, and nitrates.

Vegetation can be defined as the plant communities that occupy the earth’s surface, their structures and functions, according to Tausley. He further defined natural vegetation as the untouched, or virgin, plant communities, unaltered by man; and semi-natural vegetation as consisting of native plants which have, in some way, been modified by man’s activity.

Daubenmire adds that synecology deals with communities as elements, or basic units of vegetation. He wrote that the individuals of each species are not randomly scattered, but distributed in a pattern. Oosting wrote of these patterns as mutual relationships. These relationships included all the direct and indirect effects that organisms have on each other; and the factors affecting the interrelationships include competition for water, light, and nitrates, stratification, and dependence. This community, which he defined as an aggregation of living organisms having mutual relationships among themselves and their environment, varies from a mat of lichens on a rock to a fairly homogeneous composition of a one thousand acre forest.

Now, the dwelling place of a community, or even of just a species, including all those operative factors that influence the plants themselves — except competition — is the habitat in the words of Braun-Blanquet, echoed by McDougall.

Daubenmire adds the synonyms of ecotype and biotype, defining habitat as a specific kind of living space or environment, a constellation of interacting physical and biologic factors which provide at least minimal conditions for one organism to live, or a group to appear together.

All authorities agree that those operative factors of the habitat are: 1) the climatic, or atmospheric factors; 2) the edaphic, or soil, factors; 3) the orographic, or topographic, factors, and 4) the biotic factors (the effects of the living environment).

The difference between habitat and environment is in scope. Oosting explains that, within a particular environment, there is a range of conditions associated with those

**BOOK REVIEW**


In a letter to the Editor (Palmetto, May, 1983), Elliott Brown mentioned that Small’s Manual of the Southeastern Flora (1933) is out of print. As a general reference book for Central Florida flora (excluding ferns and allies), Small’s Manual has been our most comprehensive test for identification.

Besides this loss, many floristic and taxonomic changes have occurred over the last 50 years since Small wrote his book. Even though I am a landscape architect and an amateur botanist, identification of plants found along roadsides and in romps to the woods has proved difficult and

often frustrating without a picture, or referencing several texts. Usually by the time I go through the full process, the specimen has wilted and dried beyond recognition.

The Guide to the Vascular Plants of Central Florida fills the void and bridges the gap for serious amateur botanists and students alike.

In the text, the complete flora (native and naturalized) of thirty counties, from Levy, Marion, and Volusia in the north to Lee, Hendry, and Broward in the south, is keyed and listed by plant families with genus and species listed alphabetically. Plant descriptions are omitted, and the brief botanical nomenclature used in simple descriptive keys are defined in the glossary. This comprehensive reference book contains two indices, including scientific and applicable common names. I find this very useful for those plants for which I recall only a common name or genus.

Additionally, a brief description of habitat, statement of general distribution in Central Florida, region of activity, whether exotic, season of sexual reproduction, and pertinent synonymy follows each species listing.

Mr. Wunderlin’s Guide should prove valuable to the advancement of native plant awareness and understanding species diversity through simplified identification. A one-stop reference manual, light enough for use as a field guide, listing all the flowering and non-flowering plants of Central Florida, has finally arrived and is a joy to use. It’s my guess a guide for North Florida is next, Mr. Wunderlin?

David Drylie