

## PLANT TAXONOMY

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### ABSTRACTS

**Fossil Leguminosae from the Eocene of Southeastern North America.** PATRICK S. HERENDEEN and DAVID L. DILCHER, Department of Biology, Indiana University, Bloomington, IN 47405.—Fossil Leguminosae are among the most abundant and diverse elements in the Eocene Claiborne Formation of southeastern North America. The three legume subfamilies (Caesalpinioideae, Mimosoideae, Papilionoideae) are represented by numerous leaflet and fruit types and by several types of flowers and inflorescences. At present, 22 types of fossil leaflets and 18 types of fossil pods are recognized from 10 localities. There are often numerous extant legume genera that are generally comparable to a particular fossil leaflet or pod. Details of venation and cuticle are used to further evaluate these similarities. Examples of fossils representing the tribes Caesalpinieae, Detarieae, Mimoseae, Sophoreae, Dalbergieae, and Millettieae will be presented. In some cases, it has been possible to determine which types of fossil leaflets and pods may have been produced by the same plant species. These fossils are important in that they document both the early diversity of the Leguminosae and the phytogeographical affinities of the Eocene flora in southeastern North America.

**Clarification of the Identity and Taxonomy of *Carex albolutescens* Schw. and *C. longii* Mack. (Cyperaceae).** PAUL E. ROTHROCK, Department of Biology, Taylor University, Upland, IN 46989.—Some current regional floras from eastern North America consider *Carex longii* Mack. to be synonymous with *Carex albolutescens* Schw. An examination of type specimens, herbarium material from various parts of the range, and several population samples showed that there are two morphologically distinct taxa. They differ in spikelet shape, pistillate scale apex, and perigynial beak shape. These differences are especially sharp for populations from the eastern seaboard region. Microscopic study of culm cross-sections also revealed significant differences in wall thickness, the amount of sclerenchyma tissue, and size of epidermal cells. In at least one regional flora, the *Vascular Flora of the Carolinas*, the reduction of *Carex longii* to synonymy was based in part upon a misapplication of the name *C. festucacea*.

**A Field Guide to Indiana Wildflowers.** KAY YATSKIEVYCH, 4118 Utah St., St. Louis, Missouri 63116.—A *Field Guide to Indiana Wildflowers* will enable persons with little or no botanical training to quickly and reliably identify all 1650 species of Indiana plants (excluding grasses, sedges, rushes, and trees) using a

combination of photographs, drawings, and text. The introductory section "What Is a Flower?" defines and illustrates pistillate, staminate, and perfect flowers, inflorescences, and specialized flowers. Based on information from this section, "The Family Finder" then uses a simplified method of looking at flowers and counting their parts and uses drawings to locate the family. Family names are those used in Cronquist (1981) and photographs (ca. 650, which roughly equal the number of genera) will facilitate recognition of major visual groups within each family. Visually similar species have brief text and usually line drawings of details necessary to distinguish them from the one photographed. This simple, visual, and scientifically accurate presentation will be useful to amateurs, interpretive naturalists, students, teachers, botanists, and scientists in related disciplines. Indiana University Press has expressed interest in publishing this book, which will be completed within the next year.