Introduction

Volume 1 of the *Flora of Florida* provides background information on the physical setting, vegetation, history of botanical exploration, and systematic treatments of the pteridophytes and gymnosperms. Volumes 2 through 7 will contain the dicotyledons and volumes 8 through 10, the monocotyledons.

This volume contains the taxonomic treatments of 19 families.

ORGANIZATION OF THE FLORA

Taxa Included

Florida, with more than 4,300 taxa, has the third most diverse vascular plant flora of any state in the United States. The *Flora of Florida* is a treatment of all indigenous and naturalized vascular plant taxa currently known to occur in the state. Naturalized is defined as those nonindigenous taxa growing outside of cultivation and naturally reproducing. This includes plants that have escaped from cultivation as well as those that were intentionally or accidentally introduced by human activities in post-Columbian times. Taxa that have not been recently recollected and may no longer exist in the wild in Florida are formally treated both for historical completeness and on the premise that they may be rediscovered in the future.

A taxon is formally treated in this flora if (1) an herbarium specimen has been seen to document its occurrence in Florida, or (2) a specimen is cited from Florida in a monograph or revision whose treatment is considered sound.

Taxa Excluded

Literature reports of taxa attributed to Florida that are considered to be erroneous or highly questionable and therefore to be excluded from this flora are listed following the treatment for the genus, or in the case of genera not otherwise treated, at the end of the family. The reason for exclusion is given in each case. Most commonly, the taxon is excluded because it is based on a misidentified specimen(s), lack of documentation by means of a specimen, or it is based on a misapplied name, that is, a name correctly applied to a plant not found in Florida.

Systematic Arrangement

Recent studies have demonstrated that the traditional dicotyledons are paraphyletic and that the monophyletic monocotyledons are derived from within the dicotyledons. We believe that the arrangement as proposed by the Angiosperm Phylogeny Group (Stevens, 2017) has merit and is followed in this work with slight modifications. For convenience, the genera and species within each family are arranged alphabetically.

Descriptions

Descriptions are based on Florida material and are given for each family, genus, species, and infraspecific taxon.

Common Names

Non-Latinized names given for the taxa are derived from published sources as well as from our own experience. No attempt is made to list all names that have been applied to a taxon, to standardize names with a specific source, or to supply a name for species where one is not in general usage. For plants lacking a common name, the generic name may be used as is the usual practice.

Derivation of Scientific Names

The derivation of the generic name and that of each specific and infraspecific epithet is given.

Synonymy

A literature citation is given for each species, infraspecific taxon, and synonym. Synonyms listed are only those that have been cited for Florida in manuals, monographic treatments, and technical papers. Also included is the basionym and all homotypic synonyms of a name introduced into synonymy. The homotypic synonyms are listed in chronological order in a single paragraph, and the paragraphs of synonyms are put in chronological order according to the basionym of each. If the type of a taxon is a Florida collection and is known, this information is given. We do not attempt to lectotypify the numerous Florida taxa needing lectotypification in the belief that this is best left to monographers.

For families and genera, only the author and date of publication is given. Family and generic synonyms listed are those that have been used in the major publications pertinent to the Florida flora.

Citation of periodical literature conforms to that cited in Lawrence et al. (1968) and Bridson and Smith (1991). Other literature citations conform to that cited in Stafleu and Cowan (1976 et seq.). Author abbreviations are those listed in Brummitt and Powell (1992).

Habitat

The terminology used for plant communities generally follows that of Myers and Ewel (1990) but may vary.

Distribution

The global distribution is given for each family and genus where native and naturalized. Relative abundance in Florida (ranked as common, frequent, occasional, or rare) and the distribution are given for each species and infraspecific taxon. The format for distribution of species and infraspecific taxa is: Florida; North America (Continental United States, Canada, and Greenland); tropical America (West Indies, Mexico, Central America, and South America); Old World (Europe, Africa, Asia, Australia, and Pacific Islands). For taxa occurring in all of these areas, the phrase "nearly cosmopolitan" is used. For taxa of limited distribution in Florida, range statements by county are usually given. For taxa of wide distribution in Florida, the range is given in general terms: *panhandle*—from the Suwannee River west to Escambia County; *peninsula*—east of the Suwannee River and south of the Georgia line southward through the Florida Keys. Because of the vast floristic differences in peninsular Florida, this region is often further subdivided into northern, central, and southern regions and the keys. The northern region is east of the Suwannee River and south of the Georgia line southward through Gilchrist, Alachua, Putnam, and Flagler Counties. The central region extends from Levy, Marion, and Volusia Counties southward through Lee, Hendry, and Palm Beach Counties. The southern peninsula consists of the southernmost four counties (Collier, Broward, Monroe, and Miami-Dade). The Florida Keys consist of the chain of islands from Key Largo to the Marquesas Keys and the Dry Tortugas. Politically, they are part of Monroe County. The panhandle is subdivided into eastern, central, and western regions. The eastern region consists of the counties west of the Suwannee River west through Jefferson County, the central region extends from Leon and Wakulla Counties west through Holmes, Washington, and Bay Counties, and the western region consists of the westernmost four counties (Walton, Okaloosa, Santa Rosa, and Escambia).

Since the species distribution may change as new data are added, please refer to the Atlas of Florida Plants website (Wunderlin et al., 2018) for current information.

Endemic or Exotic Status

Endemic taxa are those whose global distribution is confined to the political boundary of Florida. If a taxon is a non-native, the region of nativity is given. Non-native taxa are those that are known to have become part of the flora following the arrival of Ponce de Leon in 1513. Admittedly, this is an arbitrary starting point as several species are believed to have been introduced by Paleo-Indians

before 1513. Technically, these are considered as native. Another problem in interpretation arises when propagules arrive after 1513 by some means other than human activity (that is, hurricanes, storms, sea-drift, or animals) and the species becomes established. Again technically, these are considered as non-natives. It is sometimes difficult to determine whether a widespread species is native or exotic, and our opinion may differ from that of others.

Reproductive Season

The sexual reproductive (flowering) season for each species and infraspecific taxon is given. The reproductive seasons are broadly defined as follows: spring—March through May; summer—June through September; fall—October through November; winter—December through February. Species "flowering out of season" are sometimes encountered.

Hybrids

Named hybrids are listed along with the putative parents, nomenclature, usually with comment concerning distribution in Florida.

References

Major monographs, revisions, and other pertinent literature, other than those cited in the nomenclature, are cited where appropriate in the text and listed at the end of the volume.

Taxonomic Concepts

Taxonomic interpretations and nomenclature are generally in accord with recent monographs or revisions for the various groups except where it is believed that recent evidence necessitates a change. Citation of a monograph or revision in the text implies consideration of the work during the preparation of the treatment, but not necessarily acceptance. Where a difference of opinion exists among published treatments or the treatment in this work deviates from that of the reference cited, a discussion of alternative opinions is often provided.

Species, subspecies, and varieties are considered as entities with a high degree of population integrity. Color forms and minor morphotypes that occur within a species and that may be formally recognized as *forma* by other authors are accorded no formal recognition in this work.

No nomenclatural innovations are intentionally published in the *Flora*.