

KIAWAH ISLAND NATIVE PLANT DATABASE INTRODUCTORY NOTES FOR ONLINE TOOL

I. INTRODUCTION

a. Source of Database Information

Six print and electronic references were used to identify Kiawah Island's native plant species including a vegetation survey conducted as recently as 2012, and an inventory of coastal marshes from 1974. A comprehensive plant list utilizing data from the following sources yielded 530 plants:

- i. South Carolina Wildlife Federation native plant list.
- ii. South Carolina Native Plant Society's Dewees Island native plant list.
- iii. Lady Bird Johnson Wildflower Center online database selected for South Carolina region.
- iv. A Vegetation Survey of Kiawah Island prepared by Joel Gramling, PhD, 2012.
- v. The 1975 Environmental Inventory of Kiawah Island prepared for Coastal Shores, Inc. by the Environmental Research Center, Inc. of Columbia, SC.
- vi. Inventory of South Carolina's Coastal Marshes, 1974, prepared by the South Carolina Wildlife and Marine Resources Department.

The list of 530 plants was reduced to about 400 by selecting only plants from the lower coastal plain physiographic region from the South Carolina Plant Atlas. Following the curation of the master list of 400 species, a subset of approximately 200 common plants was researched for inclusion in the first release of the database.

b. Plant Terms Explained

Native versus Exotic

Native Species—Native species are those plants indigenous to a specific region. Typically, in the United States, natives are those plants that are believed to be present prior to the arrival of European settlers. After that time, humans began to introduce plants from other countries. For purposes of the Kiawah Island Native Plant Database the list is restricted to those plants believed to be indigenous just to Kiawah Island, excluding natives present in other regions of South Carolina or the United States. Examples of commonly used Kiawah native plants include: Palmetto, Wax Myrtle, Beautyberry, and Sweetgrass.

Exotic Invasives—Exotic plants are those species brought to the United States by intention (e.g., Chinese Tallow Tree, Chinese Privet) or accident. These alien species wreak havoc on Kiawah's ecosystem by spreading uncontrollably through bird or

wind-dispersed seed and displacing our native species. Exotics fail to provide native wildlife the food sources they need to survive and reproduce. According to Kaufman and Kaufman, “Invasive Plants: A Guide to Identification and the Impacts and Control of Common North American Species”, in a 2003 speech, the U.S. Forest Service Chief Dale Bosworth asked the nation to appreciate the latest greatest environmental threat to its forests. “The second great threat [after fire],” Bosworth said, “is the spread of unwanted invasive species.” He went on to say, “All invasives combined cost Americans about \$138 billion per year in total economic damages and associated control costs.”

Exotic Non-invasives—Exotic plants that don’t displace native species are considered non-invasive; however, they do not provide the ecosystem services needed by Kiawah wildlife to sustain themselves or their offspring. Exotic non-invasives can include plants from other regions of the U.S. or those from other countries. Examples of these exotic non-invasive species present on Kiawah include: Crape Myrtle, Fragrant Tea Olive, Bottlebrush, and Boxwood.

Dioicous versus Monoicous—Native fruit-bearing species such as Beautyberry, Wax Myrtle, and Yaupon Holly provide the right balance of nutrition for Kiawah’s birds and mammals. Some plants need a male pollinator (dioicous) that flowers at the same time as the same female species such as Yaupon Holly and Needle Palm. Other plants are monoicous and have male and female reproductive organs on the same plant such as St. John’s Wort and Carolina Rose. In order to provide wildlife with the fruit they need for survival it’s important to know which plants need a male pollinator from those that don’t. The database contains limited information about which species are dioicous versus monoicous. As more information is gathered about fruit-bearing species the database will be updated accordingly.

II. DATABASE UPDATES

The database will be updated periodically to include additional species from the Kiawah Island master plant list and to reflect performance data collected from Kiawah Island property owners and landscape professionals.

III. PESTICIDE USE

Several of Kiawah’s native plants (e.g., Southern Magnolias, Redbuds, Maples) are susceptible to damage caused borers. Some cultivars (variations on the straight species) have been bred to resist damage from borers. Landscape professionals tend to treat borers with a class of neuro-active insecticides called neonicotinoids (or neonics for short) which are harmful to bees and should not be used. As research on less harmful treatment of borers is conducted this database will be updated accordingly.

IV. PLANTS HARMFUL TO KIAWAH ISLAND

For more information about which exotic plants are harmful to Kiawah, see these publications:

<https://www.se-eppc.org/southcarolina/scinvasives.pdf>

https://efotg.sc.egov.usda.gov/references/public/SC/Major_Invasive.