ROBERT H. BARRON
COASTAL MANAGEMENT AND CONSULTING
7611 Lawrence Rd, Boynton Beach, FL 33436
Cell 561-441-1446, <beachmaker@aol.com>

Coastal Management and Consulting is a beach/dune design and permitting consulting business. Robert H. Barron, principal, also owns Coastal Growers Inc., the associated research nursery and dune landscaping contractor.

Mr. Barron has been working on Florida and Caribbean coastlines since 1973 and has planned and executed nearly two thousand private and public dune restoration projects. Most have been designed to fall within the FDEP field permit or exemption level to minimize administrative costs to the projects, and have encouraged more than four million dollars in private investment in coastal conservation. The scopes of work have ranged from large scale hurricane repair projects with miles of shoreline to intricate and comprehensive beach dune and strand zone habitat restorations.
The companies specialize in projects which seek to replicate the natural coastal ecosystem utilizing a balanced mix of native plant species which do not require supplemental irrigation. A significant portion of the projects address oceanside landscaping of private homes, balancing natural dune function with an attractive and sustainable vista.

Coastal Growers Inc. specializes in the propagation and production of rare and listed coastal plant species which are generally not available in the trade. The Company has rescued from development sites many populations of threatened or endangered plants. These are nursery cultured to then optimize survival in restorations without sprinkler systems. Coastal Growers has developed propagation protocols for more than sixty dune species, and shares those with other native nurseries to ensure rare species survival and commercial availability. The nursery produces many of its sixty plus native species as a sole source supplier.

Representative projects: (total body of work since 1973 more than eighty miles of Fl. shoreline)

- **City of Delray Beach**, Florida – Since 1980. Dune design, permitting, and installation. Three miles of public and privately owned dune restoration on an artificially nourished sand beach. Typical width of the dunescape is 140 feet with over one hundred ten plant types, including reproducing populations of rare and endangered species.
  Town of Palm Beach, Florida – Since 1990. Design, permitting and installation of Clarke Avenue storm repair and Midtown dune installation. Collaboration with PB Garden Club to research and develop methods for non irrigated dune restoration. 150+ private projects.
- **Town of Jupiter Island**, Florida - 1990 to present. Five miles of nourished shoreline dune restored, typically 40 feet wide with vegetation installed to reduce erosion. 100+ private projects.
- **Elbow Key, Bahamas** - 1999. Designed and supervised locally sponsored project to restore 5 miles of hurricane damaged shoreline.
- **Hutchinson Island**, Florida – 2006 to 2009. Post hurricane dune repair. Eight miles of pioneer zone dune installed on renourished beach, followed by extensive 30 species strand zone enhancement.
- **Private preserve, Indigo Island**, Bahamas - 2002. Consulting and design services to a large and complex private mitigation project in the Bahamas Land and Sea Trust Preserve.
  FPL Nuclear Plant Strand Dune Restoration. 1999, 2000. Design, permitting and construction of $1/3 million, 50K plant, 60 species, one mile, no sprinkler, strand dune restoration.

Rob regularly addresses professional organizations and conferences on topics related to coastal policy, plant science and management practices. Audiences have included the National Conference on Beach Preservation Technology of the U. S. Shore and Beach Preservation Association, the Florida Rare Plant Task Force Annual Conference and the Florida Native Plant Society Annual Meeting and Conference. Rob teaches CEU classes on dune management to landscape architects for the Florida Association of Native Nurseries. He has also tenaciously and successfully lobbied for revisions to coastal management policy and regulation at both State and Local levels.

USDA United States Department of Agriculture

NRCS Natural Resources Conservation Service

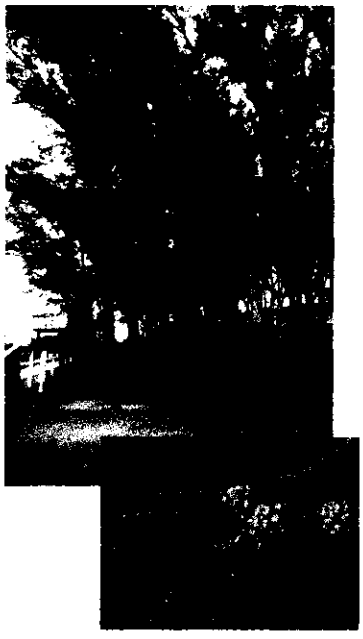
Native Plants for Coastal Dune Restoration:

What, When, and How for Florida

Contents:

Coastal Exotic Invasives – Species to Avoid

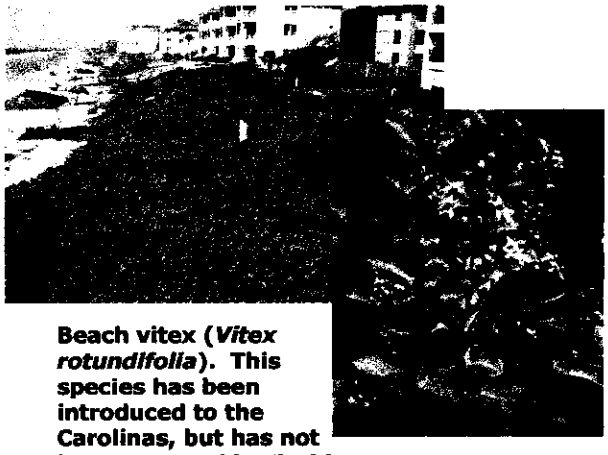
Non-native, invasive plant species are all too common throughout Florida. Coastal dunes and their associated ecosystems are not immune to invasive species becoming established. The species can severely impact the integrity of coastal sites as they displace native plants, degrade wildlife habitat, and disrupt the ecological functioning of the community. Therefore, avoid use of non-native, invasive species at all times, and quickly remove such species as soon as possible when they are discovered. More information on the species listed here can be found at http://www.fleppc.org or http://www.beachvitex.org.



Australian pine (*Casuarina glauca* or *C. equistifolia*).

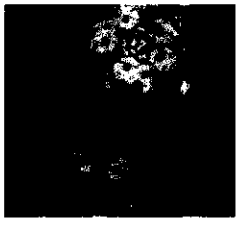
Beach naupaka (*Scaevola sericea*). Note white fruit; the native species fruit is black.

Seaside mahoe or portia tree (*Thespesia populnea*).



Beach vitex (*Vitex rotundifolia*). This species has been introduced to the Carolinas, but has not been reported in Florida.

Schefflera or umbrella tree (*Schefflera actinophylla*).



Lantana (*Lantana camara*).

Santa Maria (*Calophyllum antillanum*).

Sources of Coastal Plants for Florida

Association of Florida Native Nurseries (http://www.afnn.org)

Commercial Suppliers of Sea Oats in Florida (2003) DGEF 150 (http://nsgl.gso.uri.edu/flsgp/flsgpg03002.pdf)

List of Native Plant Nurseries in Florida and Alabama (http://www.aces.edu/waterquality/streams/Vegetation/native%20nusery%20list%20florida.doc)

For sources of the named plant materials developed by the Brooksville Plant Materials Center, please contact the Brooksville Plant Materials Center staff (352-796-3385).

Additional sources of coastal plants can be found in "Seed & Plant Vendors Guide of Conservation Plants for the Mid & Southeast U.S" http://www.ms.nrcs.usda.gov/technical/2006SeedandPlanVendorsof.pdf)

Photo/Illustration Credits:

Except where noted, all photos taken by Tim McCabe, photographer, NRCS, Washington, D.C., and other NRCS staff.

©Larry Allain @ USDA-NRCS PLANTS Database.
- p. 13 Saltgrass plants
- p. 25 Largeleaf pennywort flower
- p. 31 Florida rosemary stems and leaves

©Shirley Denton @ http://www.shirleydenton.com
- p. 14 Hairawn muhly seedhead
- p. 19 Seashore dropseed plant
- p. 22 Searocket plant and flower
- p. 23 Baybean plant and flower
- p. 30 Sea lavender flowers
- p. 33 Seagrape plant
- p. 34 Buttonbush fruit
- p. 35 Silverleaf croton plant
- p. 36 Coin vine plant and seedpods
- p. 39 Buttonsage
- p. 40 Waxmyrtle fruit
- p. 41 Hog plum tree and Chickasaw plum fruit
- p. 42 Sand live oak acorn
- p. 43 Cabbage palmetto trunk
- p. 44 Gullfeed fruit
- p. 45 Saw palmetto flower stalk
- p. 47 Spanish bayonet plant
- p. 49 Beach naupaka plant and fruit

©William S. Justice @ USDA-NRCS PLANTS Database
- p. 38 Seacoast marshelder stem

©Dr. Charles Gresham, Clemson Univ.
- p. 49 Beach vitex plant and flower

©Ann Murray @ Univ. Florida Center for Aquatic and Invasive Plants (http://plants.ifas.ufl.edu)
- p. 49 Seaside mahoe
- p. 49 Santa Maria

©Fred Nation @ http://www.plantatlas.usf.edu
- p. 31 Florida rosemary plant

©Vic Ramey @ Univ. Florida Center for Aquatic and Invasive Plants (http://plants.ifas.ufl.edu)
- p. 49 Schefflera

Forest and Kim Starr @ http://www.hear.org
- p. 14 Gulfhairawn muhly plants
- p. 27 Railroad vine habitat
- p. 28 Seashore purslane plant
- p. 29 Cabbage palms on beach
- p. 32 Cocoplum shrub and fruit

©Thomas Socha, US Army COE, Charleston, SC
- p. 8 Bitter panicum transplants

©Robert Soreng @ USDA-NRCS PLANTS Database
- p. 20 Seaoats seedhead

Native Plants for Coastal Dune Restoration Sites in Florida[1]			
		Most likely occurrence	
Common name	Scientific name	Frontal Zone	Backdune Zone
Grasses			
Saltgrass	*Distichlis spicata*		X
Gulfhairawn muhly	*Muhlenbergia filipes*	X	
Bitter panicum, bitter panicgrass	*Panicum amarum*	X	
Seashore paspalum	*Paspalum vaginatum*	X	
Seacoast bluestem, coastal little bluestem	*Schizachyrium* spp.	X	
Saltmeadow cordgrass, marshhay cordgrass	*Spartina patens*	X	
Seashore dropseed	*Sporobolus virginicus*	X	
Seaoats	*Uniola paniculata*	X	
Other herbaceous plants			
Searocket	*Cakile* spp.	X	
Baybean, beachbean	*Canavalia rosea*	X	
Beach sunflower	*Helianthus debilis*	X	
Largeleaf pennywort	*Hydrocotyle bonariensis*		X
Beach morningglory, fiddle-leaf morningglory	*Ipomoea imperati*	X	
Railroad vine, bayhops	*Ipomoea pes-caprae*	X	
Seapurslane, shoreline purslane	*Sesuvium portulacastrum*	X	
Trees and shrubs			
Sea lavender, sea rosemary	*Argusia gnaphalodes*	X	
Florida rosemary, sandheath rosemary	*Ceratiola ericoides*		X
Cocoplum	*Chrysobalanus icaco*		X
Seagrape	*Coccoloba uvifera*	X	
Buttonwood, button mangrove	*Conocarpus erectus*		X
Silverleaf croton, gulf croton, beach tea	*Croton punctatus*		X
Coinvine	*Dalbergia ecastaphyllum*	X	
Yaupon holly	*Ilex vomitoria*		X
Seacoast marshelder, seashore elder	*Iva imbricata*	X	
Buttonsage, lantana	*Lantana involucrata*		X
Waxmyrtle, southern bayberry	*Morella cerifera*		X
Plum	*Prunus* spp.		X
Sand live oak	*Quercus geminata*		X
Cabbage palm, cabbage palmetto	*Sabal palmetto*		X
Gullfeed, inkberry	*Scaevola plumieri*	X	
Saw palmetto	*Serenoa repens*		X
Bay cedar	*Suriana maritima*		X
Spanish bayonet, aloe yucca	*Yucca aloifolia*	X	

[1]Adapted from Craig, 1991.