

Friends of the Randell Research Center

December 2014 • Vol. 13, No. 4

Marty Kendall's Book Begins New RRC Popular Series

Color-illustrated Book Focuses on Calusa Plant Use

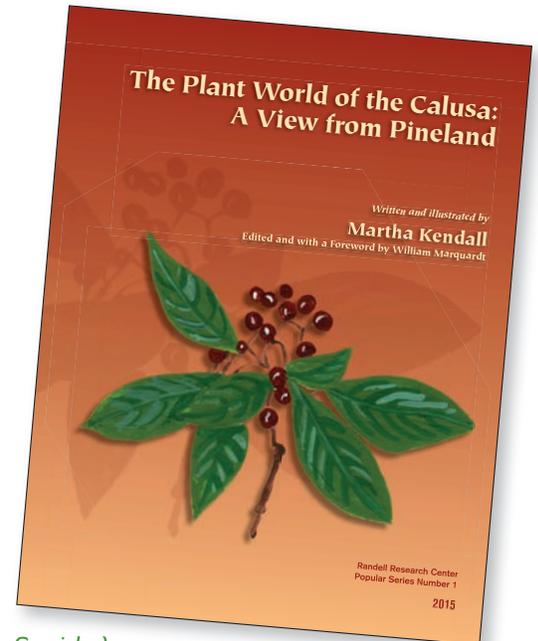
by Bill Marquardt

Visitors to the Calusa Heritage Trail at the Randell Research Center often ask how Calusa people used plants, and every year there is more interest in landscaping with plants native to South Florida. The native-plant garden that Martha (Marty) Kendall first planted along the path leading from the parking lot to the RRC classroom is extraordinarily popular (not to mention beautiful). Many people pause to admire the native plants and read their common and scientific names on the little signs we placed next to them. Thanks to the continuing volunteer work of Valerie Fors, the garden has thrived, and in November Brenda Anderson and Gayle Sheets enhanced it further with new plants and mulch.

Marty Kendall is a retired clinical psychologist who volunteers at the Calusa Heritage Trail at Pineland as a docent. Her interest in the Calusa and their use of plants led her to become a Master Gardener and Florida Master Naturalist. She resides on Pine Island. When she first suggested that a non-technical book on



Marty Kendall (Photo by Jaren Cernicky.)



Red mangrove, one of the plants featured in Marty Kendall's new book.



According to Oviedo, some native people ate the fruit in spite of its bitter taste. Medicinally, the bark has been reported to dispel worms, to stop hemorrhaging, and to remedy sore throat. Laboratory experiments have shown that the bark extract is antibacterial, it aids in controlling diabetes, it is antifungal, and it helps enhance immunity. Additionally, the extract is insecticidal..... Red mangrove may possibly have been used by the Calusa as an edible green, a beverage, a medicine, an incense, and a dye. It also served as a fuel wood.

Calusa plant use was needed, I was easily convinced. I agreed to publish it on two conditions: that it be based on sound scientific information and that it be focused on Pineland. Not only did Marty compile such a book, but she illustrated it with charming original watercolor paintings of the various plants. The result is *The Plant World of the Calusa: A View from Pineland*, a fun and interesting book that I hope will answer some of the most frequently asked questions about Calusa plant use.

When our team of archaeologists, students, and citizen volunteers began research in southwest Florida back in 1983, almost nothing was known of plant use by ancient native South Floridians – the Calusa and their predecessors. Thanks to hard-won knowledge generated by paleoethnobotanists Lee Newsom and Margaret Scarry, we now know that the Calusa managed and manipulated certain plants, and we have a far better understanding of how they used dozens of native plants for food, tools, fuel, and medicine.

As our own culture becomes more mechanized, it is easy to become isolated from our environmental surroundings. In doing so, we can forget the vast knowledge of useful plants that has been passed on by elders for millennia. I hope that this book will stimulate its readers to want to know more about these practices and that they will appreciate the contribution that plants have made to our well-being since the time of the first humans.

Marty's book is the first volume in a new "Popular Series" to be offered by the RRC. It will sell for \$24.95 and will be available at the RRC gift shop by mid-January. *All proceeds will go to the Randell Research Center Endowment Fund. Income from this endowment can be spent only for operations of the RRC.* 



A Tour of the Islands of Pine Island Sound: A Geological, Archaeological, and Historical Perspective

Part 10: Burgess Island/Little Bokeelia Island Geology and Archaeology

by Denége Patterson

Burgess Island has been its name for ninety years, but prior records show the name as Little Bokeelia Island. This article recognizes both: Burgess/Little Bokeelia Island.

Geologically, the core of the island is a series of ice-age sand dunes with elevations of at least twenty feet. Today this relatively high base supports 29 upland acres of a total of 104. In ancient times, the sand dunes accumulated along the margin of a primeval river flowing across lands now submerged by Charlotte Harbor and Pine Island Sound.

Over millennia, this island has survived countless changes in sea level. Ten thousand years ago, the Gulf of Mexico was at least 60 miles west of the island. About four thousand years ago, the waters of the Gulf of Mexico flooded Pine Island Sound. Its waters rose at least another two feet higher than today's levels, but did not breach the high dunes. The waters receded and came back again. Remnants of old shorelines appear on aerial photos and charts.

The shoreline of today's Burgess/Little Bokeelia Island is temporary. The island is fringed with red and black mangroves with three small beach-clearings. Mangroves

protect lowlands from storm erosion. Their roots provide ideal habitat for plankton and the small creatures at the bottom of the food chain attracting off-shore fish to feed and to breed.

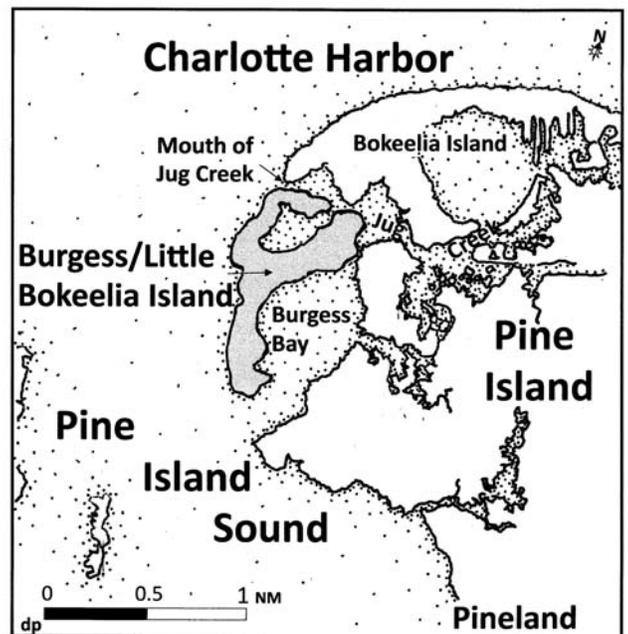
The archaeological evidence on this island is significant, covering thousands of years of occupation. It suggests that people occupied portions of the dunes during the Archaic period, when sea levels were fluctuating between extremes much lower and higher than today, and during later periods when people lived next to a newly formed estuary. An estuary is a system in which a body of fresh water meets a body of salt water; it is one of the richest, most biologically productive environments in the world.

Middle-Archaic-period hunting (5000 – 2000 B.C.), beginning just before the estuary formed, was evidenced by the presence of lithic artifacts (points chipped from stone), at a time when the Gulf was low but rising. In one test unit, animal bone, abundant charcoal, burned

wood, and the evidence of a hearth dating to the earliest occupation of the island were found.

With sea levels rising, the Late Archaic to Terminal Archaic period (2000 – 500 B.C.) is represented by quahog clam anvils, plain ceramic potsherds, and characteristically thick lightning whelk shell tools.

Some of the fastest accumulations of middens (evidence of human habitation) occurred between 500 B.C. and A.D. 500 on this island and several others in Pine Island Sound: Useppa, Cabbage Key,



(Map by Denége Patterson.)



Top left: Panoramic view of Bokeelia at the northern end of Pine Island, including the mouth of Jug Creek at far left, foreground, and the entire length of Jug Creek, running east and west, connecting Pine Island Sound to Matlacha Pass. Burgess Island/Little Bokeelia Island is in the foreground. (Photo by J. Hopkins.)

Josslyn Island, Galt Island, and Pine Island. According to the zooarchaeological evidence, this was likely a warming period during a rapid sea level rise.

A series of occupations is evident in contiguous layers of shell middens upon the high sand dune cores. A post-hole feature was identified immediately below midden deposits disturbed by modern activity. Structural features with good preservation, such as this one, are relatively rare finds. Their patterns can help us understand the function of this site. Another midden containing a discrete horizon of pen shells marked one of the first occurrences in the archaeological record of this bivalve as a food source. Perhaps Little Bokeelia Island supported a permanent village or was a temporary

campsite for seasonal fishing; only further study will confirm which interpretation is correct.

The Calusa era beginning around A.D. 500 is represented in the middens. The presence of sand-tempered plain ceramics with some Belle Glade potsherds indicates occupation both before and after A.D. 650, with occupation continuing through at least A.D. 1400 or later, including a burial mound with human remains, now under protection by Florida statute 872.02. This law makes it a felony to willfully disturb an unmarked grave.

I express my thanks to Gary Ellis, Director of Gulf Archaeology Research Institute (GARI), whose work provides the source for the archaeological portion of this article. I also thank the owners of Burgess/Little Bokeelia Island for encouraging this work. Burgess/Little Bokeelia Island shows a priceless record of flourishing human life over thousands of years and demonstrates how specific protective measures can be taken to preserve a unique, living system. The historic Burgess era will be commemorated in the next part of this series. 

Coming in March Newsletter:

First report on Mound Key Excavations

RRC combines forces with FGCU and University of Georgia at Site of Calusa Capital



Artist's conception of Calusa king's house on Mound Key, February, 1566. (Drawing by Merald Clark.)



Randell Research Center archaeologists Bill Marquardt and Karen Walker have joined forces with faculty scientists from Florida Gulf Coast University (FGCU) and the University of Georgia to investigate Mound Key, capital town of the Calusa Indians when the Spanish arrived in the 1500s. In February, 1566, Spanish governor Pedro Menéndez de Avíles met with the Calusa king in a building large enough for 2,000 people to stand inside. The following year, Menéndez founded on Mound Key the first Jesuit mission to the New World. Funded by the National Geographic Society and University of Georgia, and ably assisted by FGCU's archaeological field school students, the team investigated Mound 1 and Mound 2 at the site in the summers of 2013 and 2014, discovering information about both the Calusa king's house and the Spanish occupation. Look for our first field report on this research in the March, 2015 RRC Friends newsletter!

New and Renewing Friends of the RRC

August 16, 2014 to November 15, 2014

(Please let us know of any errors or omissions. Thank you for your support.)

Supporting Members

(\$1,000-\$4,999)

Virginia Amsler
Jon & Beverly Sensbach
Robert A. Wells, Jr.

Sponsoring Members

(\$500-\$999)

Anne Reynolds

Contributing Members

(\$100-\$499)

Valerie Ballou
Thomas Peter Bennett
Don Cyzewski
Dee Hohimer

Janet Levy
Marshall Family
Dentistry
Gayle Sheets
John & Glenda Sirmans
Larry Slick
James D. Snyder
Randal L. Walker
Ann & Bill Wollschlager

Family Members

Gloria & Andy Andrews
Eleanor Arnold
Mark Brenner & Susan Milbrath
Walt & Betsy Buch
Bill & Phyllis Dowd
Mr. & Mrs. Stephen C. Hall

Bill & Rosemarie Hammond
John & Myrtle Orzali
Amy S. Owen
Joe Simonetti

Individual Members

Jean Dickason
Stella Dion
Phyllis Faust
Guy P. Fischer
Mia Maloughney
Lona Meister
Pauline S. Schroeder
Mark Smith
Ceel Spuhler
Edward T. Winn



Announcing ...

THE TWENTIETH-ANNIVERSARY RRC ENDOWMENT CAMPAIGN

In July, 1996, Donald and Patricia Randell's gift of 53 acres of their cherished property created the Randell Research Center at Pineland. This simultaneously *preserved* a large part of the second largest Calusa Indian town and *challenged* its recipients to establish a permanent center for learning and teaching Southwest Florida's archaeology, history, and ecology. Thanks to private generosity, timely grants, donations of professional services, and thousands of volunteer hours, the Randells' dream has become reality. Today the Randell Research Center is:

- a stunning 62-acre preserve of native vegetation, wildlife, and remnants of "Tampa," an important Calusa coastal town
- the restored 1920s Ruby Gill House, location of our offices and laboratories
- a local staff of three superb professionals
- active archaeological and ecological research programs that involve faculty, students, and volunteers



Graduate student Melissa Ayvaz pauses from her M.A. thesis research to explain excavations to visiting boy scouts. (Photo by Charles O'Connor.)



Visitors to Calusa Heritage Trail stroll next to a 30-foot-high Calusa shell mound. (Photo by Bill Marquardt.)

- home of the Calusa Heritage Trail, visited each year by local residents and tourists from across the globe
- school programs for K-12 students and their teachers in social studies and sciences
- frequent offerings of Florida Master Naturalist adult-education courses on Coastal and Upland ecosystems
- public programs for visitors of all ages
- a support society of over 250 members
- a corps of more than 70 dedicated volunteers
- working relationships with other museums and educational organizations.

WE ARE NOT FINISHED!

Funds are needed to expand our teaching, improve accessibility, conduct new research, publish a series of non-technical books, and ensure continuing excellence in our personnel. The best way to ensure that the RRC is thriving and growing *forever*

— not just for 5 or 10 more years — is to build our endowment fund. This is a dedicated endowment — income can be used *only* for the Randell Research Center, not for any other museum or university program.

We have a goal of \$850,000 to be raised by 2016, when the RRC ends its 20th year. We need your help. Make a multi-year pledge today, or give an outright gift. Not ready to give today, but still want to help? Then consider including the RRC in your estate planning. Our development director, Marie Emmerson, is ready to help you make the best decision for you and the Randell Research Center. Contact her at 352-273-2087, or e-mail her at emmerson@ufl.edu. All gifts to the RRC endowment fund are tax deductible to the extent allowed by Federal law. 

Name of donor(s) _____

Address _____

City, State, Zip _____

Make your check to the University of Florida Foundation and mail to:
Randell Research Center, P.O. Box 608, Pineland, Florida 33945.



UPCOMING EVENTS

Tours and Topics at the Calusa Heritage Trail

Beginning in **November**, every Wednesday afternoon from 12:30 to 4 p.m., Calusa Bird Club and RRC volunteer Gayle Sheets will be on the trail with her spotting scope and binoculars. Often the scope will be focused on osprey action but the wading bird activity on estuarine mudflats is often marvelous as well. Gayle is a knowledgeable and willing teacher about all things feathered and will answer your questions and give you additional information about the archaeology of Pineland.

November also sees the return of the highly lauded cruise through Pine Island Sound with Captiva Cruises. It launches from Captiva Island and features information on the fishing cultures and ecology of the area, lunch at the Tarpon Lodge, and a walking tour at the Calusa Heritage Trail. Reservations and information are available by calling Captiva Cruises at 239-472-5300.

Public tours of the Trail guided by our enthusiastic staff and docents start in **January**. They take place on Wednesdays, Fridays and Saturdays at 10 a.m. and 1 p.m. No reservations are required. A donation of \$7 for adults, \$5 for seniors and \$4 for students is requested.



Ospreys at Calusa Heritage Trail, Pineland. (Photo by Rod Partington.)

Winter Solstice Sunset, Night Walk and Star Gazing at the Calusa Heritage Trail

Saturday, December 20

5:00 p.m. – 8:00 p.m.

\$35 per person (members),
\$40 per person (non-members)

**Includes light appetizers,
hot chocolate and desserts plus
two tickets for adult beverage.**

**Program is limited to the first
20 people to register.**



Young visitors learn how bones and shells from archaeological sites can reveal ancient Calusa ancient diets and environmental conditions. (Photo by Stuart Brown.)

Although Winter Solstice will actually be upon us on Sunday, December 21, we will start the celebration of the shortest day of the year on Saturday, December 20 with this very special event. Environmental educator Richard Finkel and RRC Coordinator Cindy Bear will be your guides and hosts for the evening, which will include sunset atop Randell Mound, a night walk, and star gazing. The dark skies of Pineland provide an indigo backdrop to the stars, while sunset from the Mound is often vibrantly colorful. No doubt the Calusa viewed a similar palette. Although there is no direct evidence that the Calusa celebrated celestial events, Cindy will discuss Spanish descriptions of Calusa celebrations. Richard will locate the constellations, share their legends, and discuss the use of stars by mariners. Richard began his study of the stars when we he was a naturalist in Maine. He is known for his past work with children at the Sanibel Captiva Conservation Foundation and is currently the Environmental Educator for Captiva Cruises and conducts their sailing astronomy tours. Cindy is known for her engaging and informative teaching. This event is limited to the first 20 to register by calling 239-283-2062. The price of \$35 per person for members, \$40 for nonmembers includes light appetizers and desserts and beverages. 🏹





Friends of the Randell Research Center

Pineland, Florida • December 2014
Phone 239/283-2062
Email: randellcenter2@rancercenter.comcastbiz.net

Dear Friend,

You are cordially invited to join, or renew your membership in, the RRC's support society, *Friends of the Randell Research Center*. All Friends of the RRC receive a quarterly newsletter and free admission to the Calusa Heritage Trail at Pineland. Supporters at higher levels are entitled to discounts on our books and merchandise, advance notice of programs, and special recognition. Your continuing support is vital to our mission. It means more research, more education, and continued site improvements at the Randell Research Center. Thank you.

Sincerely,

William H. Marquardt
Director
Randell Research Center



Please check the membership level you prefer, and send this form with your check payable to U. F. Foundation, to:

Membership Coordinator • Randell Research Center • PO Box 608 • Pineland, Florida 33945

- Individual (\$30) and Student (\$15):** quarterly Newsletter and free admission to Calusa Heritage Trail
- Family (\$50):** The above + advance notice on special events and programs
- Contributor (\$100-\$499):** The above + annual honor roll listing in newsletter + 10% discount on RRC publications and merchandise
- Sponsor (\$500-\$999):** The above + invitation to annual Director's tour and reception
- Supporter (\$1,000-\$4,999):** The above + listing on annual donor plaque at Pineland site
- Sustaining Members (\$5,000-\$19,999), Benefactors (\$20,000-\$99,999), and Patrons (\$100,000 and above)** receive all of the above + complimentary RRC publications and special briefings from the Director.

Permanent Address

Name _____

Address _____

City / State / Zipcode _____

Email address _____

Seasonal Address (so we can send you your newsletter while you are away)

Name _____

Address _____

City / State / Zipcode _____

Use my seasonal address from _____ to _____
(date) (date)



Photo by A. Bell



Randell Research Center

PO Box 608
Pineland, FL 33945-0608

Forwarding Service Requested

Non-profit
Organization
U.S. Postage
PAID
Pineland, FL
33945
Permit No. 26

New T-shirt to Feature Unique Pineland Artifact

Pineland Crane Head Carving Is More than 1000 Years Old

by Cindy Bear

Visitors to the Calusa Heritage Trail are captivated by the artwork of Merald Clark, who brings to life the past people of Pineland. Now, Clark's artwork will adorn a new t-shirt memorializing a significant artifact from the site.

In "A Mechanical Waterbird Mask from Pineland and the Calusa Masking Tradition," Chapter 14 of *The Archaeology of Pineland*, he describes the artifact, unearthed at Pineland in 1977, as "...perhaps the best example of a pre-Columbian mechanical mask to have been recovered in an archaeological context." Dated to A.D. 865-985, its friable condition meant Clark's understanding of the piece relied on creating a model. He also conducted research on local birds and the ways cultures use birds in arts and images, and added creative conjecture to produce five concepts of how it may have appeared and been worn. When whole, it included a moveable lower beak that, when operated by means of cordage, produced a clacking sound as it struck the upper beak. No traces of paint remain on the artifact, so Merald chose the colors of the whooping crane in his depiction. The nine holes along the bottom edge became places for adorn-

ments in the image he portrays on the new t-shirt.

The shirt is now available in our store. Income from all store sales helps defray our costs to preserve, protect, and teach about the Pineland site and the Calusa. We strive to carry products that teach about what we learn, and we look forward to seeing many of you wearing Merald's artwork. 

CALUSA HERITAGE TRAIL



RANDELL RESEARCH CENTER PINELAND

RRC News

Editor: William Marquardt

Writers:

Cindy Bear
Bill Marquardt
Dené Patterson

Production: GBS Productions

UF UNIVERSITY of
FLORIDA



Gift Shop & Tour Information:
(239) 283-2157

Send questions or comments to:

Randell Research Center
PO Box 608
Pineland, FL 33945-0608
Telephone: (239) 283-2062
Fax: (239) 283-2080
Email: randellcenter2@rancercenter.comcastbiz.net
Website: www.flmnh.ufl.edu/RRC/

