The Sixth Annual Calusa Heritage Day will be held on Saturday, March 12, 2011, bringing together archaeologists, artists, authors, craftspeople, exhibitors, and storytellers around the theme “Native Plant Uses by Native People.” Artists participating include Peter Sottong of Naples, who creates extraordinary reproductions of Calusa masks, Felix Rodriguez, whose wooden canoe paddles are stunning in their detail, and David Meo, whose paintings grace new displays at the Ding Darling National Wildlife Refuge.

“Calusa Tastings” will offer a chance to sample roasted oysters, grilled and smoked mullet, and papaya, and those sampling the fare will learn about the archaeological significance of these foods. Storytellers Gerald Hausmann and Gene Toncray will join others to share tales and Carol Mahler, author of Guy LaBree, Barefoot Artist of the Seminoles, will be among the authors present. Speakers include John Beriault (10:30 a.m.), Lee Newsom (11:15 a.m.), Robin Brown (12:15 p.m.), and Bill Marquardt (1:00 p.m.).

Examples of native plants with information about their many uses by early and contemporary people will be featured in the native plant tent and vendors will be on hand selling native plants suitable for southwest Florida. Tours of the Calusa Heritage Trail, suitable for all ages and interests, will be offered. Additional walking tours focusing on native plants and wildlife will take participants off the main trail to little-visited areas.

A children’s area will feature hands-on activities. Experts from the Florida Museum of Natural History will be on hand with artifacts and information on the use of plants by the Calusa and their predecessors. You will be able to learn how archaeologists identify ancient plant seeds and wood found at the Pineland archaeological site.

The keynote scientific technical lecture by Dr. Lee Newsom, “Paleoethnobotanical Foundations of the Calusa Kingdom,” will take place at 2 p.m. in the Classroom. Seating is limited, so pre-registration is required for only this Calusa Heritage Day event by calling 239-283-2157. The 2 p.m. presentation will be made

What is Paleoethnobotany?

Botany is the study of plants. Ethnobotany is the study of how living people use plants. So, Paleoethnobotany is the study of the use of plants by people who lived in the past. A special branch of archaeology, it focuses on plant use by people who are no longer living. Paleoethnobotanists study seeds, wood, pollen, and phytoliths recovered from archaeological sites such as Pineland in order to discover what plants people used for food, medicine, fuel, tools, and housing. By comparing plant uses through time, they can also find out how the environment has changed, and how people adjusted to those changes.

Continued on page 2
Explore Estuaries Up Close and Personal

Muck about in the shallow waters of Pine Island Sound to see for yourself some of the aquatic critters that call these shallow waters home and you’ll quickly understand the importance of these waters. We’ll provide the nets, buckets, and information so that you can experience first-hand the marvels of the estuary.

All outings will begin at the Calusa Heritage Trail pavilion and are available to adults and children over 9 years of age by preregistration only. All children must be accompanied by an adult (one adult per 4 children maximum). Participants must wear sturdy, old shoes, clothing to get wet, and expect to encounter mud!

We are pleased to be sponsored by the Charlotte Harbor National Estuary Program and able to make these “muck abouts” free to participants. Call 239-283-2157. Each date is limited to 20 people.

Some Facts About Native Plants and Their Uses by Native People

Source: 50 Common Native Plants Important In Florida’s Ethnobotanical History, by Ginger M. Allen, Michael D. Bond, and Martin B. Main, 2002.

- Ethnobotanical uses of plants can be grouped into six main applications: food, fiber (including dyes), medicinal, housing/construction materials, transportation, and miscellaneous uses (tools, toys, weapons, ceremonial objects, etc.).
- Native plants that have been developed into significant commercial crops include pecans (Carya illinoiensis), blueberries (Vaccinium sp.), and muscadine grapes (Vitis rotundifolia).
- Estimates have suggested that as much as one half of the popular pharmaceuticals employed today have ethnobotanical origins. To date, there are approximately 120 plant-based prescription drugs (95 different species) on the U.S. market.
- There are currently more than 300 plants listed on the state endangered species list in Florida. As native plants disappear, so does opportunity for ethnobotanical uses.
- The flowers of Beach Sunflower, Helianthus debilis, with an alum fixative provides a pale green dye, while the seeds produce a purple and black pigment.
- The whole plant of Spanish moss, Tillandsia usneoides, with alum, will produce a tan dye while wax myrtle leaves create yellow.
- Although the fruits of Pond apple, Annona glabra, can be eaten raw or boiled, a powder made from the seeds is used as fish poison.
- The seeds of Pickerelweed, Pontederia cordata, are edible.
- Leaves of Sowthistle, Sonchus oleraceus, are high in minerals and vitamin C.

Calusa Heritage Day Continued from page 1

available after Calusa Heritage Day on the RRC’s website. Dr. Newsom will also offer a non-technical public talk at 11:15 a.m. in the Speakers tent. Dr. Newsom will draw on her work at Florida Archaic sites, particularly Little Salt Spring and Windover, to provide the foundational evidence for plant uses, including gourds, fabrics, and medicinal plants, by early people. Transitioning and narrowing her focus to Southwest Florida and Pineland, she will focus on the Calusa and the archaeological evidence from Pineland and share relevant data from studies in the Caribbean. Food and drinks will be available, and the gift shop will be open for business.

The event takes place at the Calusa Heritage Trail, with free parking provided across the street from the trail at the Pineland Marina. Access to the Marina will be via Pineland Road, north on Robert Road, and west on Caloosa Drive. Admission for the day is $5 for adults, children under 12 free. All proceeds benefit the RRC’s mission to teach about and preserve our Calusa legacy. We hope to see you there!
Pine Island Holds Clues to the Oldest Land Flora in Florida!

Oldest Known Land Plants in Florida were at Pine Island
by David M. Jarzen

Some of the pollen was identified as airborne, and could have travelled to Pine Island over great expanses of water. However—and of great significance—some pollen is related to plants that are pollinated by insects, and are not transported far at all. Contrary to earlier beliefs that Florida was submerged during the Eocene, there must have been land at or near the present site of Pine Island in order for the plants to have grown and the pollen to have entered the fossil record.

Similar studies of rocks from Levy and Citrus counties in Florida have also demonstrated that Florida was not submerged during the Eocene. But the pollen recovered from Pine Island clearly shows that the oldest land plants thus far discovered are from Pine Island. Together, the findings from Florida suggest perhaps a chain of islands from the mainland stretching into the Gulf of Mexico as do the Florida Keys today.


What is Paleobotany?

Paleobotany is the branch of Paleontology that focuses on ancient plant life, as revealed by fossils. Thus, Dr. Jarzen’s work is an example of Paleobotany, not Paleoethnobotany, because the fossils he studied are from a paleontological site, not an archaeological one. The fossils he identified are about 35 million years old. People did not live in the Pine Island area until about 12,000 years ago.

Rocks recovered from the drilling of an injection well on Pine Island provide clues to the nature of the earliest land plants so far discovered in Florida. By identifying the pollen and spores contained in the rocks, and identifying the parent plants that produced the pollen, scientists at the Florida Museum of Natural History and ENTRIX Corporation in Fort Myers demonstrated that Pine Island had land plants growing on the island about 35 million years ago in the Eocene epoch.

New and Renewing Friends of the RRC
November 1, 2010 through January 31, 2011
(Please let us know of any errors or omissions. Thank you for your support.)

Sustaining Members
($5,000-$19,999)
Paul & Warren Miller

Supporting Members
($1,000-$4,999)
Captiva Cruises, Inc.
Lawrence E. Aten
William Marquardt
Joyce Mutz

Sponsoring Members
($500-$999)
Virginia Amsler
William & Victoria Winterer

Contributing Members
($100-$499)
Marion Almy

Cindy Bear & Charles O’Connor
Pat Blackwell
Bob & Anne Boomer
Robin & Jan Brown
Jefferson Chapman
Edith Marquardt Cuda
John & Donna DiVito
Robin & Lin Fox
Carole Kircher
Ronald M. & Mary M. Koontz
Janet Levy
Robert N. McQueen
John Monkman
Jim & Betsy Murphy
Abraham & Cynthia Ofer
David & Darbee Percival
Gina Poppell
Mark & Lori Rhodes
Beverly & Roger Stone
Dan & Kay Van Riper
Jim & Anne Whitmore
Ann & Bill Wollschlager

Family Members
Leigh F. Andrews
John & Sue Miller
Ted & Pat Oakes
Joe O’Connor & Maureen Corbett
Doug & Joy Stafford

Individual Members
Harold Bruner
Larry Cavanagh
Guy P. Fischer
Frank Grieco
Sandy House
Michael E. Moseley
Alice Schaefer
Carole Z. Scott
Larry Slick
Craig Sparks
David Steadman
Catherine Williams
Warm Mineral Springs/
Little Salt Spring
Archaeological Society
Deborah Zwetsch

Student Members
Daniel Eagan
Samantha Eagan
Michael Wylde

Pollen of the Gentian family of flowering plants points to insect pollination and represents the earliest land plants recovered from Florida. (Photo by D. Jarzen.)

Rocks recovered from the drilling of an injection well on Pine Island provide clues to the nature of the earliest land plants so far discovered in Florida. By identifying the pollen and spores contained in the rocks, and identifying the parent plants that produced the pollen, scientists at the Florida Museum of Natural History and ENTRIX Corporation in Fort Myers demonstrated that Pine Island had land plants growing on the island about 35 million years ago in the Eocene epoch.

Some of the pollen was identified as airborne, and could have travelled to Pine Island over great expanses of water. However—and of great significance—some pollen is related to plants that are pollinated by insects, and are not transported far at all. Contrary to earlier beliefs that Florida was submerged during the Eocene, there must have been land at or near the present site of Pine Island in order for the plants to have grown and the pollen to have entered the fossil record.

Similar studies of rocks from Levy and Citrus counties in Florida have also demonstrated that Florida was not submerged during the Eocene. But the pollen recovered from Pine Island clearly shows that the oldest land plants thus far discovered are from Pine Island. Together, the findings from Florida suggest perhaps a chain of islands from the mainland stretching into the Gulf of Mexico as do the Florida Keys today.


What is Paleobotany?

Paleobotany is the branch of Paleontology that focuses on ancient plant life, as revealed by fossils. Thus, Dr. Jarzen’s work is an example of Paleobotany, not Paleoethnobotany, because the fossils he studied are from a paleontological site, not an archaeological one. The fossils he identified are about 35 million years old. People did not live in the Pine Island area until about 12,000 years ago.

New and Renewing Friends of the RRC
November 1, 2010 through January 31, 2011
(Please let us know of any errors or omissions. Thank you for your support.)

Sustaining Members
($5,000-$19,999)
Paul & Warren Miller

Supporting Members
($1,000-$4,999)
Captiva Cruises, Inc.
Lawrence E. Aten
William Marquardt
Joyce Mutz

Sponsoring Members
($500-$999)
Virginia Amsler
William & Victoria Winterer

Contributing Members
($100-$499)
Marion Almy

Cindy Bear & Charles O’Connor
Pat Blackwell
Bob & Anne Boomer
Robin & Jan Brown
Jefferson Chapman
Edith Marquardt Cuda
John & Donna DiVito
Robin & Lin Fox
Carole Kircher
Ronald M. & Mary M. Koontz
Janet Levy
Robert N. McQueen
John Monkman
Jim & Betsy Murphy
Abraham & Cynthia Ofer
David & Darbee Percival
Gina Poppell
Mark & Lori Rhodes
Beverly & Roger Stone
Dan & Kay Van Riper
Jim & Anne Whitmore
Ann & Bill Wollschlager

Family Members
Leigh F. Andrews
John & Sue Miller
Ted & Pat Oakes
Joe O’Connor & Maureen Corbett
Doug & Joy Stafford

Individual Members
Harold Bruner
Larry Cavanagh
Guy P. Fischer
Frank Grieco
Sandy House
Michael E. Moseley
Alice Schaefer
Carole Z. Scott
Larry Slick
Craig Sparks
David Steadman
Catherine Williams
Warm Mineral Springs/
Little Salt Spring
Archaeological Society
Deborah Zwetsch

Student Members
Daniel Eagan
Samantha Eagan
Michael Wylde
Annual Honor Roll, 2010

Each year the Randell research center recognizes all those who have donated $100 or more during the previous calendar year by listing them in the Annual Honor Roll. Gifts of donated materials or services are indicated by an asterisk (*). We extend our heartfelt appreciation for the support that these and all of our gifts represent.

BENEFACTORS ($20,000 – $99,999)
National Park Service (grant-in-aid)
Dale W. Schneider, Inc.*

SUSTAINING MEMBERS ($5,000 – $19,999)
Chris & Gayle Bundschu
Paul & Warren Miller
Tim & Judith Bear

SUPPORTING MEMBERS ($1,000 – $4,999)
Virginia Armstle
Lawrence E. Aten
Community Foundation of Greater Lakeland
John & Gretchen Coyle
D. L. Havlin*
William H. Marquardt
Joyce Mutz
Linda & Nick Penniman

CONTRIBUTING MEMBERS ($100 – $499)
Sharon Albright
Marion Almy
Eileen & Paul Arsenault
Cindy Bear & Charles O’Connor
Paul Benedum, Jr.
Thomas Peter Bennett
Bokkela Boat Club
Bob & Anne Boomer
Jan Brink
Joseph P. Brinton III
Robin & Jan Brown
John Cauthen
Jefferson Chapman
Ann Cordell
Carole Crumley
Bill & Mary Cyzewski
Don Cyzewski
Stan & Mary Farnham
Robin & Lin Fox
Gaea Guides
Nancy Glickman
Mr. & Mrs. A. William Hager
Gene & Evelyn Hemp
Mary Ann Hight
Ms. Shirley Hoch
Matlacha Hookers
Fred & Elaine Jette
Barney & Peggy King
Carole Kircher
Ronald E. Mary Koontz
Robin C. Krivanek
Janet E. Levy
Michael & Shaina Lindsey
Carol Mahler
Manatee/Sarasota Sierra Club
Marco Island Historical Society
Edith Marquardt Cuda
Darcie MacMahon
Thomas McIntosh
Joan McMahong
Robert N. McQueen
Diane & Dick Maher
Madlacha Hookers
Joe & Joan Merkwaz
Jerald T. Milanich
John Monkman
Jim & Elizabeth Murphy
Margi B. Nanne
Lee A. Newsom
Abraham & Cynthia Ofer
Denege Patterson
Vernon Peoples
David & Darbee Percival
Anne Reynolds
Donna L. Ruhl
Sabal Trust Company
John C. & Glenda L. Sirmans
Beverly & Roger Stone
Dan & Kay Van Riper
John & Sally van Schaick
Julia & Augusto Villalon
Randal L. Walker
Patty Jo Watson
Robert A. & Phyllis Wells
Tim Wininger
Ann & Bill Wollschlager
Sally Woliver and David Clark
Craig R. Woodward
Deborah Zwetsch

Keep up with upcoming events at the RRC on our website:
www.flmnh.ufl.edu/RRC/events.htm
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 and 10% discount on children’s programs
- Contributor ($100-$499): The above + annual honor roll listing in newsletter + 20% 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

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)

The Randell Research Center is a program of the Florida Museum of Natural History, University of Florida.
### Books on Southwest Florida's Archaeology & History

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors/Editors</th>
<th>Publisher</th>
<th>Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Calusa and Their Legacy: South Florida People and Their Environments</td>
<td>Darcie A. MacMahon and William H. Marquardt</td>
<td>U. Press of Florida</td>
<td>Hardcover</td>
<td>$39.95</td>
</tr>
<tr>
<td>Sharks and Shark Products in Prehistoric South Florida</td>
<td>Laura Kozuch</td>
<td>Monograph 2</td>
<td>Softcover</td>
<td>$5.00</td>
</tr>
<tr>
<td>The Archaeology of Useppa Island</td>
<td>William H. Marquardt</td>
<td>U. Press of Florida</td>
<td>Hardcover</td>
<td>$35.00</td>
</tr>
<tr>
<td>New Words, Old Songs: Understanding the Lives of Ancient Peoples in Southwest Florida Through Archaeology</td>
<td>Charles Blanchard</td>
<td>Peppertree Press</td>
<td>Hardcover</td>
<td>$19.95</td>
</tr>
<tr>
<td>Sharks and Shark Products in Prehistoric South Florida</td>
<td>Laura Kozuch</td>
<td>Monograph 3</td>
<td>Hardcover</td>
<td>$20.00</td>
</tr>
<tr>
<td>Florida's First People</td>
<td>Robin Brown</td>
<td>Pineapple Press</td>
<td>Hardcover</td>
<td>$29.95</td>
</tr>
<tr>
<td>Missions to the Calusa</td>
<td>Jerald T. Milanich</td>
<td>U. Press of Florida</td>
<td>Hardcover</td>
<td>$35.00</td>
</tr>
<tr>
<td>Florida's Indians</td>
<td>Jerald T. Milanich</td>
<td>U. Press of Florida</td>
<td>Hardcover</td>
<td>$19.95</td>
</tr>
<tr>
<td>Archaeology of Precolombian Florida</td>
<td>Jerald T. Milanich</td>
<td>U. Press of Florida</td>
<td>Softcover</td>
<td>$27.95</td>
</tr>
<tr>
<td>Song of the Tides</td>
<td>Tom Joseph</td>
<td>U. of Alabama Press</td>
<td>Hardcover</td>
<td>$19.95</td>
</tr>
<tr>
<td>Eyes of the Calusa</td>
<td>Holly Moulder</td>
<td>White Pelican Press</td>
<td>Hardcover</td>
<td>$8.95</td>
</tr>
<tr>
<td>The Crafts of Florida's First People</td>
<td>Robin Brown</td>
<td>Pineapple Press</td>
<td>Softcover</td>
<td>$9.95</td>
</tr>
<tr>
<td>CALUSA POSTCARDS</td>
<td></td>
<td></td>
<td></td>
<td>$4.50</td>
</tr>
<tr>
<td>Images from the Calusa Heritage Trail</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art by Merald Clark, 4”-x-6” postcards, full-color, set of 11 cards</td>
<td>$4.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AWARD-WINNING DOCUMENTARIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Domain of the Calusa: Archaeology and Adventure in the Discovery of South Florida’s Past</td>
<td></td>
<td>DVD video</td>
<td>$12.95</td>
<td></td>
</tr>
<tr>
<td>Expedition Florida: Three-Program Set (From Exploration to Exhibition, The Wild Heart of Florida, Wild Alachua)</td>
<td></td>
<td>DVD video</td>
<td>$24.95</td>
<td></td>
</tr>
<tr>
<td>RANDELL RESEARCH CENTER GEAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRC logo hat</td>
<td></td>
<td>$20.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRC logo short-sleeve cotton staff shirt</td>
<td></td>
<td>$35.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRC logo short-sleeve cotton T-shirt</td>
<td></td>
<td>$12.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRC logo tote bag</td>
<td></td>
<td>$10.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRC logo coffee mug</td>
<td></td>
<td>$10.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To place order, make check payable to Randell Research Center and mail to: Randell Research Center, PO Box 608, Pineland, FL 33945. Questions? 239-283-2157. E-mail: randellcenter2@rancenter.comcastbiz.net

Total for items ordered: $0.00
Florida residents add sales tax of 6%.
Shipping: Add $3.50 for first item, $0.50 for each additional item.

**TOTAL:** $0.00

Name (please print): ____________________________
Mailing address (please print): ____________________________

Zip code (please print): ____________________________