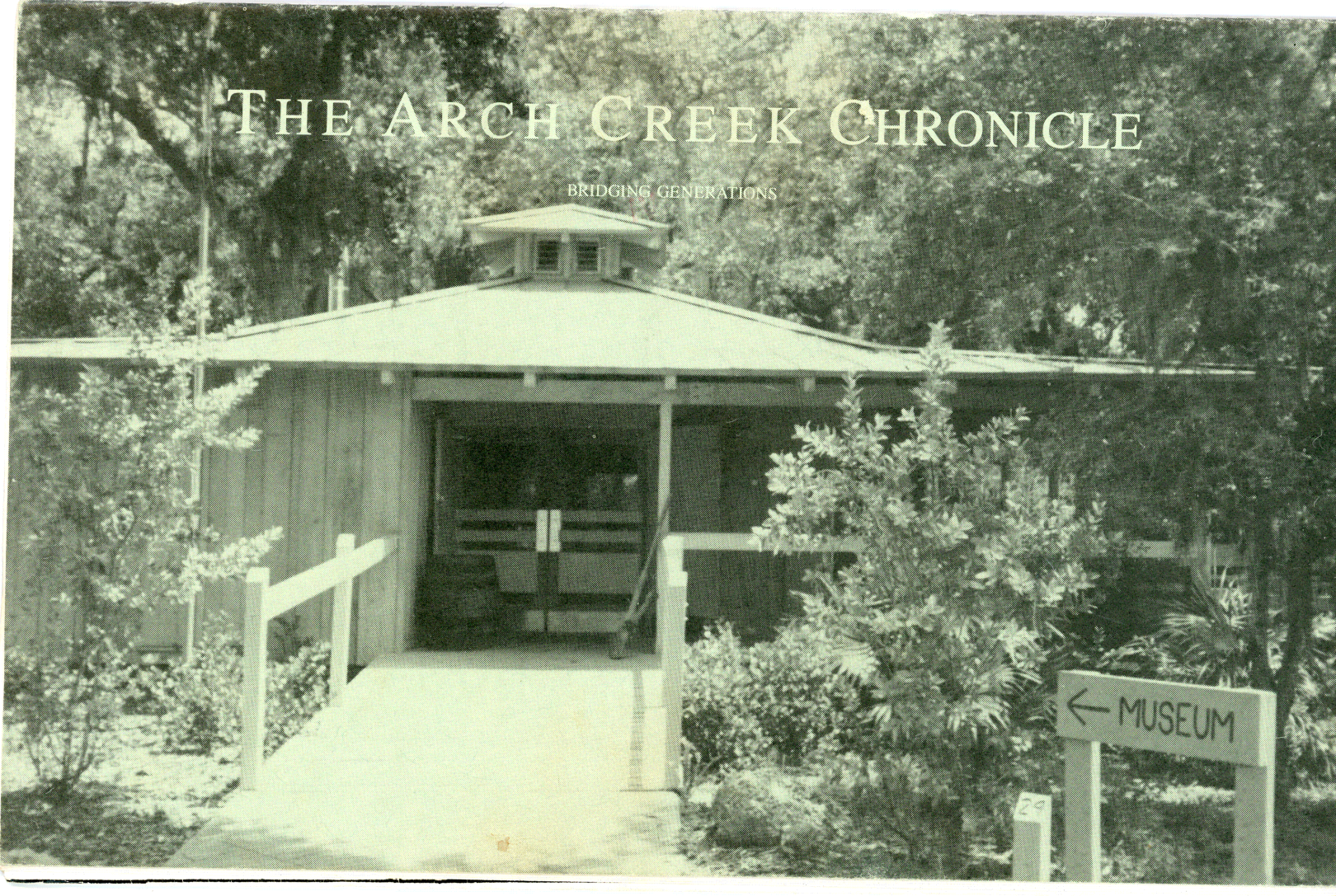


# THE ARCH CREEK CHRONICLE

BRIDGING GENERATIONS



29

# THE ARCH CREEK CHRONICLE

*A publication of the Arch Creek Trust, Inc.,  
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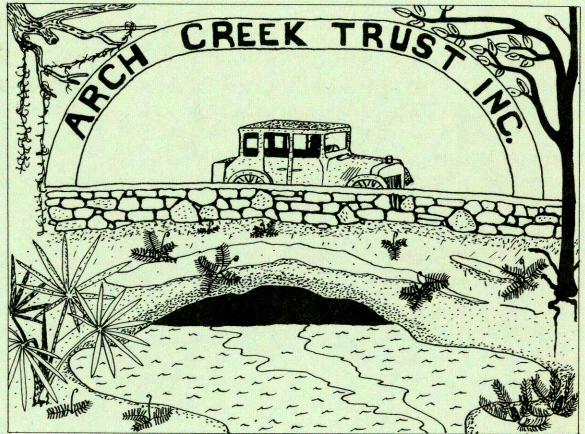
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# THE ARCH CREEK CHRONICLE

## Volume III, Number 1

The purpose of the Arch Creek Trust, a not for profit organization, is to preserve, protect and defend the natural flora, fauna, archeological artifacts and natural character of the Arch Creek Area; To advise the State of Florida, Metro-Dade County and/or the City of North Miami as to how best preserve, protect and defend the natural flora, fauna, archeological artifacts and natural character of the Arch Creek Area; and to bring to attention of the public the needs of the area and support to those working to preserve it.

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THE LETTER FROM THE EDITOR  
by J. Dallas Love

At the February speaker's meeting of the Arch Creek Trust our guests gave an enlightening view of the progress of plant succession at Arch Creek Park. Patricia Cunningham and Joe McGuire demonstrated through slides how much growth had taken place since Jim King, Chief Naturalist of Metroparks, and Youth Conservation Corps members planted much of the area which is now the hammock. In six short years, slender wisps of plants and seedlings have shot up 15 to 20 feet or more creating a lush understory. These intermediate succession plants harbor the proper environment from which a mature subtropical hardwood forest will emerge.

Perhaps those in attendance didn't notice the stark contrast in the speakers' vision of Arch Creek Park that struck me. Joe McGuire emphasized the role of succession in the natural environment. Every square inch of the Park is in a transition whether one is looking at beggar ticks, Jamaican Dogwood or Pigeon Plum. Each has its purpose, period and benefit. That is nature as laid out by the real master site plan. All of the ingredients are readily available to take their place in time.

Paddi Cunningham on the other hand, spoke of exotic plant eradication and the re-introduction of native hardwoods to create a pre-Columbian hammock. She spoke in glowing terms of the ideal conditions that exist in a hammock environment. She summed up her vision with the statement, "If we are to have natural places in the future, we will have to create them."

One Park, two visions. Are we able to see the benefit in observing nature regenerate the environment through its diversity or are we convinced that only our personal intervention will make Arch Creek Park's recovery complete? I choose to see the good that is right in front of me without lifting a hand.

I mentioned that I saw a man catching butterflies in the Park and I felt it was wrong. Joe agreed and said, "If you were a collector of butterflies, this would be the ideal place because of the diversity of succession going on here." Now this is an example of everyday

problem solving, the existence of rare butterflies which creates an attractive nuisance, in which one's vision makes all the difference. I cannot help but extend the logic of those who would take it upon themselves to plant every tree in the Park, and how it affects the solution to this problem. Will they reason, "Let's create an environment that supports fewer butterflies so that we have less thieves?" I am comforted in the fact that it takes so long for hammock hardwoods to mature. That is a virtue we can all live with. Even the butterflies!

### BOOK REVIEWS

by Susan Weiss

A classic work tops this edition's reading list. Published forty years ago, "The Everglades: River of Grass" by Marjorie Stoneman Douglas tells the story of this vast expanse of land, covering one hundred miles from Lake Okeechobee to the Gulf of Mexico. As Douglas states in the first line of this work, "There are no other Everglades in the world." Let that thought absorb you for a moment. Besides being an excellent account of the flora and fauna of the Everglades and documenting its importance to the entire South Florida Region, this book is an epic story about Florida's discovery by the Europeans and shipwrecked sailors. You will learn that the Seminole were driven to the tip of the Florida peninsula and had to fight the U.S. Army in order to stay. Then the area was rediscovered by homesteaders, entrepreneurs, developers and tourists. The decades old dream of draining the Everglades to provide rich farmland was finally attempted under the leadership of Governor Napoleon Bonaparte Broward in the early 20th century, with typically disastrous results. You'll be surprised and fascinated to learn the history of the Everglades. This book is a must if one is to understand why things are the way they are today in South Florida.

"Land from the Sea: the geological Story of South Florida" is just that - a description of the geology of this region. It's all about rocks, sand and coral. You will become acquainted with the Pamlico Sea, oolitic rock, Miami limestone and bryozoan facies. Very basically I can tell you that "the oolitic mound eventually became the Atlantic coastal ridge, and the bryozoan region to the west became the Everglades." (p 46) This short book by John Edward Hoffmeister is a useful reference for those individuals interested in knowing the composition of the world around them. Some readers may simply want to skim through it, gleaning a few facts here and there, while others will turn to it again and again to better understand our own backyards.

#### CALENDAR OF EVENTS

- April 6, 1987, Monday night at 7:30 PM the Board of Directors will meet to discuss the business of the Arch Creek Trust. The public is welcome. The location will be the Museum.
- April 8, 1987, Wednesday afternoon at 4:30 PM the Park Liaison Committee will meet at the Arch Creek Park Museum to discuss topics of mutual concern.
- April 20, 1987, Monday night at 7:30 PM at the Museum will be the Speaker's Meeting of the Arch Creek Trust. This month's guest is Jim King, Chief Naturalist for Metroparks. He will discuss some of the programs offered throughout the Park system.
- April 23, 1987, Thursday evening at 5:00 PM members of the Arch Creek Trust and their guests are invited to make a canoe tour of Arch Creek. The launch will begin at North Miami's Enchanted Forest Park and will include an inspection of the Bridge reconstruction. Call Dallas Love at 751-6755 for details.
- May 4, 1987, Monday night at 7:30 PM at the Museum. The Board of the Arch Creek Trust will meet to make final preparations for the Arch Creek Fair. The public is welcome.

- May 6, 1987, Wednesday afternoon at 4:30 PM the Park Liaison Committee meets to discuss topics of mutual concern. At the Museum.
- May 9th and 10th, 1987, Saturday and Sunday from 9:00 AM to 5:00 PM at Arch Creek Park will be the Arch Creek Fair! Featuring native and traditional arts, crafts and demonstrations. Come out and support the Trust.
- May 18, 1987, Monday night at 7:30 PM at the Museum. This will be the Speaker's Meeting of the Arch Creek Trust. This month's special guest is Dr. Kathleen Shea Abrams, Associate Director of the FAU/FIU Joint Center for Environmental and Urban Affairs and Governing Board Member of the South Florida Water Management District. Her topic will be "Lake Okeechobee: its problems and prospects."
- June 1, 1987, Monday night at 7:30 PM the Board of Directors will meet to discuss the business of the Arch Creek Trust. This meeting will be held at the Museum and the public is welcome.
- June 3, 1987, Wednesday afternoon at 4:30 PM at the Museum will be the Park Liaison Meeting.
- June 15, 1987, Monday night at 7:30 PM at the Museum will be the Arch Creek Trust Speaker's Meeting. Tonight's guest is Phil Capen, watercolour artist and painter of South Florida landscapes. He will discuss and demonstrate his work.
- July and August - Summer recess.
- September 7, 1987, Labor Day Holiday. Monday night at 7:30 PM at the Museum. The Arch Creek Trust Board of Directors will meet to discuss business. The public is welcome.
- September 9, 1987, Wednesday afternoon at the Museum will be the Park Liaison Committee Meeting. This meeting begins at 4:30 PM.
- September 21, 1987, Monday night at 7:30 PM at the Arch Creek Park Museum. Speaker to be announced.
- October 5, 1987, Monday night at 7:30 PM at the Museum. The Arch Creek Trust Board of Directors meet to discuss business.

## PARK UPDATE

The Arch Creek Trust elected Officers and Directors at the February Board Meeting. Serving you are: Dr. Doris Thomasi, President; Charles Easton, Vice President; J. Dallas Love, Secretary; Kathleen Miner, Treasurer; and Board Members, Maureen Harwitz, Carol Helene, Elmore Kerkela, Henriette M. Roth and Susan Weiss. Please support these dedicated volunteers through your suggestions and comments in the coming year.

The "Plant Sale" committee met on Tuesday, March 24, 1987 and set the tone of this spring's event by renaming it the Arch Creek Fair. The changes made are a result of the critique process begun after the last fund raiser. The vendor selection method will no longer be hinged on fees alone and invitations will be mailed to fewer persons. Balance and harmony will be criteria for choosing vendors for the first time. Demonstrators of historic and traditional arts and crafts will be encouraged to expand our public education goals. The Trust sale of plants will be de-emphasized to free up our members to manage the Fair. The overall trend is to be flexible enough to take advantage of the talents of our membership no matter who that may be. We hope that everyone is as enthusiastic as those on the Fair Committee are to achieve this end.

There are two schedule changes to make note of. First, the Arch Creek canoe outing will be delayed one week to April 23, 1987. This is due to a schedule conflict with Dallas Love, the principal organizer for this event. Also there will not be adequate advance notice given to the Dade County Parks and Recreation Department since this month's Liaison Meeting falls only one week from the former date. Please sign up with Dallas Love by calling 751-6755 and leaving a message if you would like to see Arch Creek by canoe.

The next change is the date of the Bridge Dedication which was set for April 26, 1987. So that the invited public will have a safe and aesthetic passage onto the Bridge, the dedication will not be scheduled until



the landscaping and fencing are completed. Members will be notified by special invitation as to the new date.

PIANT PROFILE  
Primrose Willow

The Primrose Willow, *Ludwigia peruvianna*, accents any view of Arch Creek by foot or paddle. Yellow petals about two inches across seem to windmill in the breeze thanks to the particular way that they overlap. The invitation to examine the flowers reveals how delicate they are since they tend to drop at the slightest touch. There is one young specimen, two feet in height, visible from the bridge at Arch Creek Park. Others are five to six feet tall in the area of Courttree Apartments. The leaves are up to six inches long and taper to a point. Their color could be described as a soft or mellow green that is pleasing to the eye.

The whippish stems and branches get woody with age. The Primrose Willow reveals an adaptation seen in many swamp plants such as the Bald Cypress. The base of the plant swells into a bulbous support structure that can thwart windfalls even though the soil is loose. The Red Mangrove accomplishes this same trait with its proprop. The common willow, with its powerful rooting hormones simply takes advantage of falling over by rooting again wherever she lays. The Primrose Willow is Arch Creek Park's most visible representative of the former method.

It has been said that the immense untapped genetic resources of the rain forests hold solutions to tomorrow's problems. Likewise, some of our native and exotic plants possess beneficial traits that can help us adapt to the environment as we impact it. The Primrose Willow could be a prime candidate to help us grow food crops on marshy land. It is desirable because of its habit and structure rather than its edibility. There are other promising examples of beneficial plants at Arch Creek Park if one chooses to see what each has to offer. The Primrose Willow symbolizes the fact that all plant stereotyping originates in our minds and that there is a place for everything. Take the time to know the Primrose Willow or any other plant for that matter, and its benefits will come forward.

FOCAL POINT  
'Tis the Season

April heralds the most important season of the year in South Florida. The decomposition season! All of those leaves that rained down on Arch Creek Park over the past few months are the primary fuel source for the hammock. Atmospheric elements, trapped in the anatomy of leaves as carbon (starches and fibers) and nitrogen (proteins) by the action of sunlight upon their chlorophyll, are recycled during this season. On the ground, leaves are oxidized (burned so to speak) by microbial reproduction that creates carbon dioxide, ammonia and nitric acids as waste products. These compounds play an important role in releasing additional trace elements from the sand and limestone beneath the hammock. Along with the beneficial effects of those former compounds, the trace minerals are readily taken up by the hammock plants which begin their primary growing spurt for the entire year.

Over millennia of adaptation, certain tree canopies harbor an environment which favors particular understory plants. In addition to sunlight patterns, the fuel properties of specific leaves are most beneficial to the hammock's rarest plants. This is why human disruption tends to perpetuate the dive from rarity to total extinction. In this simplified view of leaves as fuel it may be easy to conclude that more leaves will give us a "better environment." But we cannot undo in our lifetimes what took millions of years of cyclic phenomena to set the biological clocks of plants. More leaves or mulch may give us more fuel but it will never yield a more natural environment.

In fact if one looks at the Everglades hammock, the action of organic acids produces a "moat" around the typical example. This further isolates the type of plant and animal evolution that takes place there. The decomposition season is truly the deciding factor in making a hammock and explains the diversity from hammock to hammock. It is reported that Royal Palms grew in the hammock at the mouth of the Little River when Europeans

Continued on the last page.

## Hammock Restoration: A New Beginning

by Dr. Doris Thomasi

In the beginning there was water. The clear sheet of fresh water covering the vast expanse of the Everglades rippled and oozed relentlessly to the sea. In the rainy season, arms of the Everglades surrounded numerous islands of higher ground, pouring between the Piney Woods and the coastal ridge. Forever seeking passages to the sea, the clear, fresh water of the River of Grass penetrated the coastal ridge forming creeks and unknown solution holes and subterranean rivers. Arch Creek flowed out of the Everglades deep, clear and fresh, falling over low falls that prevented intrusion of the brackish water of the bay.

In the beginning there were people,...Indians. Some thousands of years ago people migrated from Asia onto the North American continent and eventually into the Florida peninsula. The early Spanish explorers found the Tequesta Indians along the east side of the Everglades from what is now Boca Raton to Biscayne Bay. After the disappearance of the Tequesta, another group of Indians, the Miccosukee, came from the north to escape the pressures of the White Man and the Muskogee Indians to settle in the same bountiful region. The year was about 1750. Only 150 to 250 years ago the Miccosukee fished, hunted, added their midden to that of the Tequesta and buried their dead on the site of Arch Creek Park. In traditional dugout canoes, the Indians travelled the many waterways of the Everglades and Bay. The islands of high, dry ground supported the Indian camps and the hardwood hammocks.

Along the high, warm coastal strip of southeast Florida, the underlying layer of Miami oolite limestone breaks to the surface. The Florida peninsula, having risen from the sea, had no indigenous plant life and was dependent on intrusion from continental North America and the sea to populate it. Temperate plants became successful to the north and sea-borne tropicals gained a foothold in the south. The long process of soil building through succession finally produced the calcareous loam required by hammock vegetation. The calcareous soil of

the higher, well drained hammocks of South Florida supported the dense, towering growth of broadleaf trees and shrubs of primarily tropical origin. Wind, flood, hurricanes, birds and animals, as well as Indians, brought the vegetation into the Arch Creek area which we now refer to as "native." The plants of tropical origin that made the Miami coastal hammocks their home included Gumbo Limbo, Strangler Fig, Mastic, Pigeon Plum, Geiger, Wild Lime, Paradise, Coral Bean, Lancewood, Satin Leaf, Wild Tamarind and Sabal or Cabbage Palm. Fewer plants are of continental origin such as the Live Oak, Dahoon Holly, Wax Myrtle, Sweet Bay and Prickly Ash.

Then came the population explosion of the White race. The thousands of years of Indian presence did little to change the environment or topography. A few mounds are all that remain of their sparse and scattered inhabitation. But the White Man, seeking free land under the Homestead Act, began to spread into the Biscayne Bay area. In 1875 the long arms of the Everglades swept over the Biscayne prairie a short distance west of Arch Creek Park. Arch Creek was still deep, clear and fresh. After 1900 drainage ditches were being dug to dry out the prairie to make way for agriculture. Homesteaders and farmers, with the aid of the plow and burning grew bumper crops where wet prairie once stood.

At this point there was still a great capacity for the ecology to correct White Man's disruption. It is known that a hammock in the Biscayne prairie was occupied by a homesteader in 1895 and abandoned. Twenty years later the hammock had "digested the civilization" and restored itself through the natural means of the environment. But with the drying of the Everglades, not only the moisture and cycle of water movement had changed, but the temperature dipped lower in winter. The environment and therefore the ecology of the Arch Creek area had forever changed.

The high Miami hammock at Arch Creek Park has been deprived of its natural ecology. In 1910 one of the first recorded disturbances of the Arch Creek hammock is described as an improvement of the hammock by trimming and planting of other tropical trees and shrubs. Trails were laid out and picnicking was popular. A similar hammock at the site of the present North Miami City Hall was de-

stroyed by the early 1920's. Much of the native flora of the Arch Creek hammock were cleared for a trailer park in the 1950's.

Now, Arch Creek no longer flows out of the Everglades. Its dredged basin holds water that is saline enough for Red Mangroves to grow on the banks. A salt water intrusion dam disrupts the influence of the tides. Even though the residents and owner of the trailer park took care to preserve some oaks and native plants, the area was significantly scarred allowing the encroachment of Brazilian Pepper and exotics planted as ornamentals.

The Arch Creek Trust has undertaken to preserve, protect and defend the natural flora, fauna, archeological artifacts and natural character of the Arch Creek Area. What a noble task! The "natural character of the Arch Creek Area" embodies the central idea to guide our efforts. We have few road maps. The extent of the original hammock is lost to us and we have a small, indeed, the most important part surrounding Arch Creek Park to concern ourselves with. Still it is apparent that much detailed planning will be necessary followed by plain hard work done with great care and skill.

The "natural character of the Arch Creek Area" includes the flora, fauna, archeological artifacts, the natural bridge site, and the history of the humans that have been drawn to this site through time. Now that the Trust obligations for replacing the bridge have been satisfied, the flora of the hammock and surrounding area begs for attention. Some manner of restoration of the hammock is demanded by the "natural character of the Arch Creek Area." In order to restore the hammock many considerations are important, such as: the nature of the high Miami hammock; the hammock's ability to restore itself; the effect of changes in the environment on the ecology of the hammock flora; and the direction and pace of the restoration in light of the Park's purpose of serving the public rather than campsite for Indians.

The flora of the high Miami hammock is well documented as previously mentioned. It is fortunate that a nucleus of the native flora has been preserved in the hammock thus providing some potential for natural restoration. However, the environment no longer provides the assistance necessary for complete natural restora-

tion. Restoration must be assisted by judicious human tinkering that lends a helping hand to prevent exotics from replacing the native flora and includes the re-introduction of native flora in a skillful, effective way according to a well thought out plan. The advisory role of the Arch Creek Trust demands that we suggest ways to promote the efficient use of man power by working with nature through an understanding of the ecology of the native flora and exotics and by taking advantage of natural conditions. In addition, the laying out of trails, planting areas of interest, and maintaining good landscape principles to insure the aesthetic presentation of the beauty of the hammock must be accomplished with the public in mind.

Arch Creek Park is an important community asset in linking the past with the future. We must remind the public that we cannot destroy our world and still live meaningful lives.

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'Tis the Season' from page 7

arrived in South Florida. Yet Arch Creek and the Miami River had no Royals even though they are only a few miles in either direction. All that can be concluded is that the conditions and environments of these hammocks were very different because of long term isolation.

Without the decomposition season, South Florida flora would be more homogeneous than what was first discovered. Perhaps the term "hammock" itself would not be necessary for our discussion. The rains come and go along with the hurricanes and even an occasional frost explains the "sub" in our subtropical environment. But it is the subtle nature of South Florida geology and the effects of the decomposition of our native trees that defines the ecology of the hammock at Arch Creek Park.

Additional copies of The Arch Creek Chronicle may be purchased for \$1.00, payable to the Arch Creek Trust, Inc., 1855 N.E. 135th St., North Miami, FL 33161.



