

DECEMBER 2022

Fruit Growers of SWFL



The bi-monthly meetings of the Bonita Springs Tropical Fruit Club will NOT be held in December. Instead there will be a Holiday Party of which the date, place, and time will be announced later.

The Holiday Party will be 'potluck', please bring a dish/ dessert to share.

Letter from BSTFC President 2022

2022 has been a year of changes and challenges for all of us. We have been blessed as a group being able to meet at the fire station safely in a spacious space. We are growing in number as SW Florida continues to grow. With supply chain problems and inflation affecting all aspects of our lives, we are learning to be more resilient and learning to grow a more edible landscape utilizing the space where we live with the conditions that are given.

The freeze in early 2022 adversely affected mango production t/o South Florida, and we were lucky to have one mango tasting all season with limited varieties and samples. IAN destroyed or damaged many homes and upended many lives t/o SW Florida from Everglades City to Arcadia with many people that will be able to rebuild and others that will not be able.

Going out to Pine Island three weeks ago gave me great encouragement seeing that Mother Nature has a way of cleansing and reviving with a new cycle of life. When Crafton and I visited FruitScapes on Pine Island, Steve Cucura was very busy with his crew getting things cleaned up/repared/organized, and it was great to give him a big hug and be grateful that he had no sea water surge into his nursery, which enabled many of his plants/trees to be salvaged.



A couple of days post IAN, Steve was devastated and ready to walk away from his nursery. When his

workers returned, they told Steve that they were ready to get back to work. It is truly amazing how much work was done in one month's time to clean up! What also is amazing was the evidence of new growth coming up all over and the contagious positive attitudes shown by workers at FruitScapes.

Going to the last day of ECHO conference in Ft. Myers also was very encouraging to see how adversity is overcome over time when combined efforts are helping to solve daily changes presented by climate changes all over the World.

Our strength in BSTFC lies in our diversity and multiple cultures presented by our group. We will continue to learn not only about growing tropical fruit trees, but growing edible, nutritious and sustainable plants as we learn principles of agroforestry pertinent to SW Florida that will help to diversify use of our land in a more efficient manner while growing more fresh food locally.

As we approach 2023, let's continue to grow as a group in number with more active participation, grow more food locally, and grow in knowledge that we can share. We have much to look forward to accomplishing together! It is truly a blessing to be a part of BSTFC!

With great appreciation for all of you,
Jorge L Sanchez



**The Collier Fruit Growers' Christmas Party will be held
Monday, December 19, Starting at 6:30 pm.
The Greater Naples Fire/ Rescue Station
14575 Collier Blvd. 34119**

This will be the annual Christmas Holiday 'potluck' Party.

Collier Fruit Growers - President's Letter:

After several year absence, the annual Christmas Party will again be held Monday, December 19th at our usual meeting place starting at 6:30 pm. CFG will provide the ham, beverages, and accoutrements. Please bring a dish or dessert to share.

Included will be the selection of Officers and Board Members for the 2023 calendar year, a progress update from Daniela Cracuin on proposed education programs at the Naples Botanical Garden and several local elementary schools, and a discussion of possible activities and CFG objectives for the coming year.

To varying degrees, 2022 has been a tough year for all of us. From the reduced mango yields due to the extensive 'cold' temperatures in January and the tidal surge and salt mist during Ian to the excessive late season rain during Hurricane Nicole, the weather has wreaked havoc for Florida's southwest fruit growers. We must persevere and continue to grow the many wonderful fruits that flourish in our warm 'subtropical' climate. There were also numerous positive achievements for the Collier Fruit Growers over the past twelve months. The spring fruit tree sale was very successful.

At the beginning of July, we were again honored for the second time to sponsorship of the 'Tasting the Tropics' at the NBG, which drew more than twice the attendance of the first event in 2019. Special thanks to Dr. Noris Ledesma, Craig Morell, Jessica Mendes Ryals, and Matthew Herman for their presentations in the afternoon lectures held July 2nd at NBG. Thanks to Bonnie Hawkins for organizing the refreshments and mango tasting.

Though Hurricane Ian prevented us from holding the fall tree sale at Freedom Park, we were able to participate in the 'Naples Yard and Garden Show' held at the UF/IFAS Extension Service. Special thanks to Anameka Neelakadan for transporting the trees from FruitScapes on Pine Island and to Mario Lozano for his grafting demonstrations at the show.

As always, I big thank you to Shawne Johnson for doing a superb job in helping to format and publish the monthly 'Fruit Growers of Southwest Florida' newsletters. I attended the three-day International ECHO conference, November 15, 16, 17, and will write a summary of my observations for the January 2023 newsletter. We look forward to 2023 in which many new opportunities will present themselves.

Crafton Clift

HUMMINGBIRD CAKE

Perfect for the Holidays

Hummingbird cake tastes like a tropical vacation, befitting its Caribbean origins. The ultra-moist confection has a sweet, fruity, spicy flavor, and is always a popular and beloved Southern cake recipe. Without a doubt, the cake is a beauty with its three moist layers topped with cream cheese frosting and pecans, but it's the taste that really keeps us coming back. This is the original recipe from Southern Living magazine.

There are a few rules for success in this recipe that make it truly stand out. First, make sure to use vegetable oil, not butter to get the moist, quick-bread-like texture of the layers. Second, in keeping with current cooking trends one may decide to reduce the amount of oil called for in the ingredient list thus reducing the amount of sodium in the recipe.

Ingredients

- 3 cups all-purpose flour, plus more for pans
- 2 cups sugar
- 1 teaspoon table salt
- 1 teaspoon baking soda
- 1 teaspoon ground cinnamon
- 3 large eggs, lightly beaten
- 1 ½ cups vegetable oil
- 1 ½ teaspoons vanilla extract
- 1 (8-oz.) can crushed pineapple in juice, undrained
- 2 cups chopped bananas (about 4 medium bananas)
- 1 cup chopped pecans, toasted
- Vegetable shortening

Cream Cheese Frosting

- 2 (8-oz.) packages cream cheese, softened
- 1 cup butter, softened
- 2 (16-oz.) packages powdered sugar
- 2 teaspoons vanilla extract
- halved pecans

Additional Ingredient

- 1 cup pecan halves, toasted
-

Directions

1. Prepare the Cake Layers: Preheat oven to 350°F. Whisk together flour, sugar, salt, baking soda, and cinnamon in a large bowl; add eggs and oil, stirring just until dry ingredients are moistened. Stir in vanilla, pineapple, bananas, and toasted pecans.
2. Divide batter evenly among 3 well-greased (with shortening) and floured 9-inch round cake pans.
3. Bake in preheated oven until a wooden pick inserted in center comes out clean, 25 to 30 minutes. Cool in pans on wire racks 10 minutes. Remove from pans to wire racks, and cool completely, about 1 hour.
4. Prepare the Cream Cheese Frosting: Beat cream cheese and butter with an electric mixer on medium-low speed until smooth. Gradually add powdered sugar, beating at low speed until blended after each addition. Stir in vanilla. Increase speed to medium-high, and beat until fluffy, 1 to 2 minutes.
5. Assemble Cake: Place first cake layer on a serving platter; spread top with 1 cup of the frosting. Top with second layer and spread with 1 cup frosting. Top with third layer and spread remaining frosting over top and sides of cake. Arrange pecan halves on top of cake in a circular pattern.



Health Benefits of Cayenne Pepper

5 Good Reasons to Spice Up Your Life



Looking to add a little spice to your life – or your diet? Cayenne pepper may be just what the doctor ordered. This popular red pepper adds versatile flavor to your meals and is chock-full of health benefits to boot.

“Cayenne peppers are a great addition to a healthy diet,” says registered dietitian Alexis Supan, RD. Here’s why cayenne pepper deserves a spot in your kitchen cabinet – and how to add it to your dining routine.

What is cayenne pepper?

Cayenne peppers are long, skinny peppers with a glossy, cherry-red hue. Officially known as *Capsicum annum*, these pungent peppers are members of the Solanaceae (nightshade) family, along with their distant cousins, potatoes, eggplants and tomatoes. Cayenne peppers are thought to have originated in South America, but their easygoing spice has made them a popular addition to cuisines around the world.

Cayenne peppers have a hot-but-not-too-hot level of kick. If you’re a spicy food fan, you might be familiar with the Scoville scale. This scale measures the heat of a chili pepper, from unspicy bell peppers at one end to burn-your-face-off ghost peppers and Carolina reapers at the other.

A jalapeño pepper packs about 5,000 Scoville Heat Units, while a cayenne pepper is more like 30,000 to 50,000. “Cayenne peppers are quite a bit hotter than a jalapeño,” Supan says. “Most people wouldn’t go around snacking on raw cayenne peppers.”

Luckily, you can reap the many benefits of cayenne peppers without eating them like apples. Whether you cook with fresh peppers or sprinkle dried and powdered cayenne pepper into your meals, there are good reasons to embrace this special spice.

Is cayenne pepper healthy?

Like most colorful produce, cayenne peppers are a good source of nutrients. They are rich in:

- Vitamin C.
- Vitamin A.
- Vitamin B6.
- Vitamin K.



“If you can get your hands on fresh cayenne peppers, you’ll get a lot more vitamins. One fresh pepper has 72% of the recommended daily amount of vitamin C and 50% of vitamin A,” Supan says.

The powdered form doesn’t contain quite as many vitamins as the fresh peppers do. Still, dried cayenne powder is a good source of vitamin A, she adds. “In just one teaspoon, you’ll get 15% of your daily vitamin A.”

And vitamin A is an essential nutrient. It plays an important role in:

- Vision.
- Reproduction.
- Immune system health.
- Proper function of the heart, lungs, kidneys, and other organs.

Cayenne pepper benefits

The health benefits of cayenne peppers go well beyond their vitamin content. Many of their benefits come from capsaicin, the natural compound that gives all peppers their spicy kick.

How, exactly, are cayenne peppers good for your health? Let us count the good things 5 that cayenne can do.

1. Provides beneficial plant compounds

"Cayenne peppers are fantastic sources of antioxidants and other plant compounds that protect our cells and promote health," says Supan. Antioxidants, along with related compounds like flavonoids and carotenoids, are compounds naturally found in plants. These compounds protect our cells against damage from harmful substances in the environment. "They fight the processes that age our cells to help keep our cells young," Supan explains.

A diet rich in antioxidants can help ward off diseases, including heart disease and certain types of cancers. And cayenne peppers are a particularly good source of these superstar compounds. In one study, researchers compared antioxidant levels in 20 different hot peppers. Cayenne peppers came out on top.

2. Protects your heart

Cayenne peppers can protect heart health in several ways. There's evidence, for instance, that capsaicin can protect against inflammation in your body. Inflammation plays a role in many different diseases, including heart disease. "Cayenne peppers can keep blood vessels healthy and may help lower blood pressure," Supan adds.

Researchers found that people who regularly ate chili peppers were 13% less likely to die than people who avoided spicy fare. The reason? Spice lovers had a lower risk of heart-related diseases like heart attacks and strokes.

What's more, researchers found that when people season their meals with cayenne pepper, they're less likely to reach for the saltshaker. "Salt isn't so good for heart health, especially in people with high blood pressure," Supan says. "Increasing the amount of cayenne pepper, you eat might help you cut back on salt."

3. Improves digestion

Lots of people associate spicy foods with heartburn or an upset stomach. But for many people, spice can have the opposite effect. "Cayenne pepper is really helpful for digestion," Supan explains. "It increases gastric juices and enzyme production in the stomach, which helps us break down food."

There's also evidence that spicy foods like cayenne peppers can boost the good bacteria in your gut. The microbiome is a community of bacteria in your gut that are important for a healthy immune system. Capsaicin may help promote a healthy microbiome. Of course, spicy fare can trigger heartburn in some people. If cayenne pepper doesn't agree with you, don't force it. "If your body doesn't like it, you'll know," she says.

4. Maintain a healthy weight

Cayenne peppers and other capsaicin-containing spicy foods may help with weight loss. Spicy foods can rev up the metabolism a bit, helping burn calories. It can also help you feel fuller after eating.

"The effect isn't enough to overcome an unhealthy diet," Supan warns, "but as part of a nutritious eating plan, spicy foods may suppress appetite and help with weight loss." What's more, a spicy, flavorful diet tends to be more satisfying. And when you're satisfied, you're less likely to reach for not-so-healthy foods and snacks. "People who use strong flavors and add a lot of spices like cayenne are often happier with their diets," Supan says. "People who enjoy these flavorful herbs and spices typically eat well overall."

5. Ease pain and clear congestion

Some evidence suggests that spicy peppers are good for an achy (or stuffy) head. "When you're stuffed up, spicy foods can help clear the congestion," Supan says. And if your head is pounding, spicy chili or tacos may help. "Cayenne peppers have also been shown to help relieve headaches," she says.

Capsaicin is also used in topical form to treat pain. Creams made from the potent spice can be rubbed on your skin to treat arthritis pain.

How to use cayenne pepper

Fresh or powdered, cayenne pepper is a super addition to your diet, Supan says. "One of the great things about cayenne is that, unlike a lot of spices, it seems to blend with every type of cuisine," she says. "It's used in dishes from just about every country in the world."

That makes it a great choice for spice novices who are just dipping their toe into the world of hot peppers. Wondering where to start? Grab a pinch and get creative, Supan says. "You can sprinkle a bit of the powdered spice into just about any food. Just experiment until you find the balance you like best."

Once you've developed a taste for the punchy pepper, there are lots of creative ways to use it.

- **Mexican hot chocolate:** Stir powdered cayenne into hot cocoa for a sweet-and-spicy kick that will warm you up on the coldest of days.
- **Boost your coffee:** Supan likes to sprinkle just a bit of the spice into her coffee for a kicky pick-me-up.
- **Grab a pan:** If you're trying fresh cayenne peppers for the first time, sauteing is the most user-friendly way to prepare them, Supan says. "Chop them up, sauté them and add them to a stir fry," she suggests.
- **Go brave with raw peppers:** Raw, fresh cayenne peppers pack the most punch. If you want to fully embrace their spicy power, try chopping them into small pieces and adding them to homemade salsa. They also make a great addition to meat marinades.

[NOTE: To avoid the hot spicy taste fill gelatin capsules with powdery cayenne pepper and take as a dietary supplement. Taking too many capsules can lead to heartburn and irritation of ulcers.]

One word of warning: As your palate adjusts to cayenne peppers, you might find you like your foods hotter and hotter. But with all the potential health benefits of a spicy diet, that's a very good thing indeed.



Crafton Clift's TWO CENTS

Dr. John Christopher drank a cup of cayenne tea three times a day to lower his own high blood pressure. It returned to normal and stayed there. I heard that as a young man, Dr. Christopher was told he would be dead by 35 because his arteries were so hard., but because of chili pepper, when he was 85 his doctors said his arteries were as soft as a teenager's.

About 2010 I woke up from an afternoon nap and couldn't get out of bed because of what felt like a big black marble in my left groin. With the aid of a broomstick, I painfully made my way to the cayenne jar and something to make the powder go down. I did three teaspoons a day for a few days, and I kept [a sample of] my urine to compare color change. The clot didn't go to the brain [as feared].

I am not a tea sipper. I put a teaspoon of cayenne in my mouth and holding my breath, I took a swig of milk – swished it around to wet the pepper and swallowed it. Then, still without breathing, I took a second swig of milk and swished it around to make sure there was no dry pepper to move into my sinuses when I breathed.

I worked in Nicaragua a year with World Relief, introducing new tropical fruit. I had a load of lychee and longan air layers that had to be sprayed and inspected. On the way to Miami's air cargo a thunderstorm threatened to collapse the cardboard. The x-ray revealed a handgun? – no, my hand clippers! I had to get my boss on the phone in Managua to get a credit card numbers. Two hours upcountry and the plants were in the trusted hands of my three assistants. The pharmacist found my blood pressure off the charts and gave me a booklet to record BP three times a day for five days. I went home, took a teaspoon of cayenne, had a nap. Went back to the pharmacist, BP normal. Next morning, BP normal. Pharmacist said forget it!

Fruits which Ripen in December:

Atemoya, avocado, banana, black sapote, canistel, caimoyo (begins in January), carambola, carissa, coconut, fig, jackfruit, mamey sapote, miracle fruit, orange, Otaheite Gooseberry, papaya, passion fruit, peanut butter fruit, pomegranate, soursop, strawberry tree, sugar apple. Annual Fruits: Eggplant, winter squash (Cushaw/Seminole pumpkin), pigeon pea, bell pepper, tomatoes.



The Palmeras: A Natural Reserve, Cubarral, Colombia

LYNDON CARVAJAL ROJAS¹, AND NORIS LEDESMA^{2*}

¹University Distrital Francisco José de Caldas, Bogotá, Colombia

²Tropical Research and Education Center, University of Florida/IFAS, Homestead, FL

Additional index words. *Dictyocaryum lamarckianum*, *Croizatia brevipetiolata*, *Licaria canella*, *Clusia hachensis*, *Alchornea glandulosa*, *Hieronyma oblonga*, *Billia rosea*, *Aniba robusta*, *Ladembergia oblongifolia*, *Croton smithianus*, *Aniba perutilis*, *Wettinia fascicularis*, *Ognorhynchus icterotis*

The Palmeras Natural Reserve (PNR) is located in the Municipality of Cubarral, Department of Meta, Colombia. It has 250 hectares (618 acres) of primary and secondary forests. Its elevations range between 5413 and 6233 feet above sea level, with temperatures ranging from 53 to 74 °F, rainfall above 4000 mm per year and average relative humidity of 90%. This ecosystem, within the humid premontane forest, is characterized as a transition zone between the regions of Orinoquia, Amazonia and the Andes, a habitat with high biological diversity. The Las Palmeras Reserve has been an important research center for biodiversity, as demonstrated in the findings of birds, mammals, and plant species. The dominant plant species include the Choapo palm (*Dictyocaryum lamarckianum*), and the most abundant is Colorao (*Croizatia brevipetiolata*). Other important plant species include Half cumin (*Licaria canella*), Matapalo (*Clusia hachensis*), Palomo (*Alchornea glandulosa*), Chuguaca (*Hieronyma oblonga*), Manzano (*Billia rosea*), Laurel (*Aniba robusta*), Quino (*Ladembergia oblongifolia*), Drago (*Croton smithianus*), and Palma macana (*Wettinia fascicularis*).

Colombia is recognized as the richest country in terms of palm diversity in the Americas, and the third richest in the world with 212 species spread over 44 genera. The Cubarral municipality is in the foothills area and is undergoing continuous development, as it is one of the most economically productive areas in the region. This causes strong pressure on the territory and changes in the structure of the forest by anthropic intervention, even in the high elevation areas, where some species are threatened with extinction. Logging is frequently driven by local people's need for income and the local economies' need for wood. Logging causes significant impacts to forest ecosystems and local communities, biodiversity loss, habitat loss of fauna and flora, erosion, sedimentation of water resources, ecosystem fragmentation, and changes in land use.

The Palmeras Natural Reserve (PNR) was established as a conservation and rehabilitation center of biodiversity. The PNR is a valuable resource available for national and international researchers. This paper includes a list of the most valuable plant species in the reserve and highlights some of the reserve's outgoing projects.

LOCATION. The PNR is in the Municipality of Cubarral Department of Meta (E623500;N422886) and has an area of 250 ha (635 acres). The reserve is located 160 km (99 miles) from Bogota, 70 km (43 miles) from Villavicencio and 12.5 km (7.8 miles) from the urban area of Cubarral. Accessing the reserve is an adventure; once in Cubarral it can be reached by road, then by hiking along the mountain or by mule.

CLIMATIC CONDITIONS. The reserve is located at elevations between 5413 and 6233 ft above sea level, with temperatures ranging from 53 to 74 °F. The precipitation average is 4000 mm

per year, with a relative humidity of 94%, corresponding to the very humid premontane forest life zone.

HABITAT AND THE FOREST. The PNR has primary and intervened forest. The intervened forest had been the object of selective exploitation on valuable timber species, and these species have been in the process of natural restoration for over 10 years. The primary forest is located at the top of the property. Among the most representative tree species are the Choapo palm (*Dictyocaryum lamarckianum*), Colorao (*Croizatia brevipetiolata*), Medio cumin (*Licaria canella*), Matapalo (*Clusia haughtii*), Palomo (*Alchornea glandulosa*), Chuguaca (*Hieronyma oblonga*), Manzano (*Billia rosea*), Laurel (*Aniba robusta*), Quino (*Ladembergia macrophylla*), Drago (*Croton smithianus*), Comino Real (*Aniba perutilis*), and Macana palm (*Wettinia fascicularis*) (Carvajal, 2020).

Research conducted in the past decade in the PNR identified forest species directly associated with the survival of birds. One of the most important is the Choapo palm (*Dictyocaryum lamarckianum*) (Fig. 1) that is important to a conservation project of the endangered yellow-eared parrot (*Ognorhynchus icterotis*) in Colombia (Fig. 2). The Choapo palm is vital to the existence of the yellow-eared parrot and this bird depends on it for reproduction, food, and shelter (Murcia et al., 2019).

Management Development

The different land uses, land management practices, and population pressures have resulted in the destruction of most of the primary forest. The main cause of deforestation is the illegal use of timber, and livestock in hillside areas that causes problems of erosion, sedimentation, and mass removal. The following actions have been conducted:

PRELIMINARY RESEARCH. The PNR was officially established in 2010. Since then, research partnerships have been formed with CORMACARENA, University Distrital Francisco Jose

For supporting this project, the authors thank CORMACARENA, University Distrital Francisco Jose de Caldas, the Cañon de Guatiquia Foundation and Group Ecologic Cabildo Verde of Cubarral.

*Corresponding author. Email: norisledesma.mango@gmail.com



Fig. 1. Panoramic view of the forest showing the Choapo palm (*Dictyocaryum lamarckianum*).



Fig. 2. Yellow-eared parrots (*Ognorhynchus icterotis*) nesting in a Choapo palm.

de Caldas, the Cañon del Guatiquia Foundation, group ecology Cabildo Verde de Cubarral and other ecological groups. Efforts have been made targeting an inventory of the species found and evaluation of the existing forest.

More than 200 plant species have been identified including palms, orchids, trees, and shrubs; some of which some are listed as endemic to the region and to Colombia, some of which are endangered. The inventory includes complete photographic material for species identification, plus botanical and taxonomic descriptions. The authors are working on getting funding for publication (Carvajal, 2020).

Some of the palm species have potential uses for economic development of the region. Three species of palms are used by the Iriarteae indigenous people for the manufacture of crafts for local and international commerce (Paz López, 2019).

MONITORING THE DYNAMIC OF THE FOREST. A study has been conducted since 2009 to evaluate the dynamics of the forest at the PNR, including its floristic composition and biomass. A permanent 1-ha plot was used to measure the number of individuals, number of species, families, and dominant species with interesting results: number of plants = 607; number of species = 41; number of families = 21; dominant species = *Croizatia brepetiolata* (AB: 24.6 m²); and carbon storage = 91.69 t/ha.

CONSERVATION OF THE CHOAPO PALM (*DICTYOCARYUM LAMARCKIANUM*). A study is taking place to evaluate the population dynamic of the Choapo palm on a permanent plot of one hectare in the reserve, in which measures are taken annually (seedlings, juveniles, and mature plants). More than 8500 individuals/ha have been found at the PNR. This palm produces up to three clusters measured, two m. in height (2000–2500 fruits each). In this 1-ha plot the study has found 6891 seedlings, 640 juvenile plants and 48 mature plants (Alvares and Cárdenas, 2017; Carvajal, et al., 2015; Pedroza Padilla, 2016; and Torrejano Munevar, et al., 2018).

NEW PLANTINGS OF CHOAPO PALM (*DICTYOCARYUM LAMARCKIANUM*). The PNR has repopulated with new plantings of the Choapo palm since 2016. The reforestation involved the local community and over 2500 palms have been established.

CONSERVATION OF YELLOW-EARED PARROT (*OGNORHYNCHUS ICTEROTIS*). Two-hundred-seventy-six species of resident and migratory birds have been recorded at the reserve, including *Ognorhynchus icterotis*, *Aegolius harrisi*, *Catharus dryas*, *Falco deiroleucus*, *Grallaria hypoleuca*, *Machaeropterus regulus*, *Malacoptila fulvogularis*, *Piranga olivacea*, *Piranga rubra*, *Setophaga ruticilla*, *Tangara parzudakii*, *Thlypopsis ornata*, *Vireo flavoviridis*, *Wilsonia canadensis*, *Catharus minimus*, *Dendroica fusca*, *Dendroica striata*, *Dendroica cerulea*, *Catharus ustulatus*, *Seiurus noveboracensis*, *Contopus virens*, *Pheucticus ludovicianus*, and *Elanoides forticatus*, among others (Ruiz, 2017; Carvajal et al., 2012; Murcia et al., 2011 and Murcia et al., 2019).

The yellow-eared parrot has been designated as an endangered species in Ecuador and Colombia. This bird has been associated with the Choapo palm, and other studies relate the survival of the yellow-eared parrot with the wax palm (*Ceroxylon quindiuense*). This discovery is unique and shows the bird has been able to adapt to other ecosystems. The bird moves in the area approximately 500 ha, (60 and 80 individuals). Due to the small number of natural nests, artificial nests have been established to help ensure conservation of the parrot population. Establishing nests for the parrots will minimize the pressure on the forest. Artificial wooden nests have been placed in the Choapo palms up to 25 m high to facilitate the acceptability of precious parrots. Trained personnel were required for the installation. The project effectiveness was successful with 100% of bird colonizing the nests (Ruiz, 2017).

More research needs to be done to understand population density, eating habits, species propagation, reproductive habits, inter-specific relationships and local migrations. More artificial nests also need to be placed to help the yellow-eared parrot. Funding is required to continue with the project.

EDUCATION EFFORTS. The PNR has been hosting students from local schools and universities. One of the recent popular educational events has been the Parrot Festival. The festival takes place in Cubarral where students from the community participate in a parade proclaiming the importance of the endangered habitat in the area. Educational presentations include talks about the yellow-eared parrot and its needs for survival.

Conclusions and Future Tasks

The PNR is an important resource to help preserve over 200 species of palms, orchids, trees, and shrubs—of which some are listed as endemic to the region and the country or are endangered.

Future projects will include the protection of the natural resources that are present in the reserve with focus on most sensitive plant and animal species, including:

1. Habitat area—Land on which the primary objective will be to protect natural resources essential to the continued existence of native plants and resident and migratory wildlife.
2. Management area/ trail corridor—Lands which includes ecological trails, including developed hiking trails that run through the forest with educational interpretation.
3. Improve facilities—Establishment of a classroom and dormitory housing to support researchers and possible ecotourism. Active management of land in these areas would be required to facilitate activities while protecting valuable natural resources.
4. Outreach—Outreach is required to increase public interest and participation. Efforts have been made to involve the local schools and should be continued and extended to all members in the community.
5. Non-consumptive and ecotourism operations—PNR is a place with high potential for ecotourism, a place to conserve native fauna.
6. Interest group studies—Invite specific partners to contribute with the project.
7. External funding—Funding is crucial to keep developing the project. This support includes national and international organizations and individuals that agree with the goals of the PNR.
8. Establishment of a nursery to produce plant material for ecological restoration purposes in the PNR.
9. Recruitment of a ranger for the care, maintenance and protection of the PNR.

Literature Cited

- Álvarez Cortés, D.J. and J.F. Cárdenas Torres. 2017. Evaluación del crecimiento de palma choapo [*Dictyocaryum lamarckianum* (Mart.) H. Wendl.] en bosque muy húmedo premontano del municipio de Cubarral, Meta, Colombia. Tesis de grado. Ingeniería Forestal. Universidad Distrital Francisco José de Caldas. Facultad de Medio Ambiente y Recursos Naturales.
- Carvajal Rojas, L. 2020. Flora de Orinoquia—Piedemonte Llanero, Reserva Natural Las Palmeras, Cubarral, Meta, Colombia. Universidad Distrital Francisco José de Caldas. Bogotá, D.C. En edición.
- Carvajal Rojas, L., W. Ariza Cortes and A. Rodríguez Bolaños. 2015. Flora de los bosques de las cuencas de los ríos Planas y Tillavá, Puerto Gaitán, Meta, Colombia. Universidad Distrital, CORMACARENA.
- Carvajal Rojas, L. and M. Murcia Nova. 2012. El loro orejiamarillo del piedemonte llanero. Cubarral, Meta. Universidad Distrital Francisco José de Caldas, Cormacarena, Ecopetrol.
- Murcia Nova, M. 2019. Estructura poblacional y producción de frutos de la palma (*Dictyocaryum lamarckianum*) recurso clave de la dieta del loro orejiamarillo *Ognorhynchus icterotis*. Reserva Natural Las Palmeras, Cubarral, Meta, Colombia. Tesis de grado. Maestría en Manejo, Uso y Conservación del Bosque. Universidad Distrital Francisco José de Caldas. Facultad de Medio Ambiente y Recursos Naturales.
- Murcia Nova, M. and L. Carvajal Rojas. 2011. Aves del piedemonte llanero Cubarral, Meta. CORMACARENA, Universidad Distrital Francisco José de Caldas. Bogotá. Colombia
- Murcia, M., D. Beltrán and L. Carvajal. 2009. Un nuevo registro del Loro Orejiamarillo, *Ognorhynchus Icterotis*: Psittacidae en la Cordillera Oriental Colombiana. Ornitología Colombiana, 8:94–99.
- Paz López, C. 2019. Potencial artesanal de las semillas de tres especies de palma la tribu Iriarteeae (Arecaceae) en la Reserva Natural Las Palmeras, Cubarral, Meta, Colombia. Tesis de grado. Ingeniería Forestal. Universidad Distrital Francisco José de Caldas. Facultad de Medio Ambiente y Recursos Naturales.
- Torrejano Munevar, A. and C. Hormizda Fonseca. 2019. Estructura, composición florística y cuantificación de biomasa aérea de una parcela permanente en el piedemonte llanero. Reserva Natural las Palmeras, Cubarral, Meta, Colombia. Tesis de grado. Ingeniería Forestal. Universidad Distrital Francisco José de Caldas. Facultad de Medio Ambiente y Recursos Naturales.
- Ramírez Caicedo, J. 2018. Interpretación ambiental y cálculo de capacidad de carga para los senderos de la Reserva Natural Las Palmeras, Cubarral, Meta, Colombia. Tesis de grado. Ingeniería Ambiental. Universidad Distrital Francisco José de Caldas. Facultad de Medio Ambiente y Recursos Naturales.
- Ruiz González, N. 2017. Instalación y monitoreo de nidos artificiales para la conservación del loro orejiamarillo (*Ognorhynchus icterotis*). Reserva Natural las Palmeras Cubarral, Meta. Tesis de grado. Licenciatura en Ciencias. Universidad Distrital Francisco José de Caldas. Facultad de Ciencias y Educación.
- Pedroza Padilla, D. 2016. Estructura poblacional de la palma bombona *Dictyocaryum lamarckianum* (Mart.) H. Wendl. en un bosque muy húmedo premontano del piedemonte llanero, Departamento del Meta. Tesis de grado. Ingeniería Forestal. Universidad Distrital Francisco José de Caldas. Facultad de Medio Ambiente y Recursos Naturales.



Who We Are & What We Do

The Bonita Springs Tropical Fruit Club, Inc., is an educational not-for-profit organization whose purpose is to inform, educate and advise members and the public in the selection of plants and trees, to encourage their cultivation, and to provide a social forum where members can freely exchange plant material and information. The club cooperates with many organizations, and provides a basis for producing new cultivars. We function in any legal manner to further the above stated aims.

General Meeting:

The General Meetings will be held on the second Saturday of each month starting at 4:30 pm. The Meetings will be pot luck dinners at the Bonita Springs Fire Control & Rescue District Station at 27701 Bonita Grande Drive, Bonita Springs, FL Please bring a dish to share.

Workshops:

Workshops will be held on the fourth Saturday of each month starting at 4:30 pm. at the Bonita Springs Fire Control & Rescue District Station at 27701 Bonita Grande Drive, Bonita Springs, FL and will be pot luck dinners.. Please bring a dish to share. This open format encourages discussion and sharing of fruits, plants, seeds, leaves, insects, photos, recipes, etc. This is a great change to receive answers to specific questions.

Trips:

The club occasionally organizes trips and tours of other organizations that share our interests. The IFAS Experimental Station and the Fairchild Nursery Farm are examples of our recent excursions.

Membership:

The annual dues are \$30.00 for both individuals and families. Name tags are \$6 each. Send checks to: PO Box 367791, Bonita Springs, FL 34136, or bring to any regularly scheduled meeting.

the Bonita Springs tropical fruit club



Feel free to join BSTFC on our **Facebook group**, where you can post pictures of your plants, ask advice, and find out about upcoming events!

<https://www.facebook.com/groups/BSTFC/>

Link to the **next meeting**: <https://www.facebook.com/groups/BSTFC/events/Meetup> Link (events/meetings sync with the calendar on your phone!):

<https://www.meetup.com/Bonita-Springs-Tropical-Fruit-Club/>

Our **Website** (and newsletters with tons of info):

<https://www.BonitaSpringsTropicalFruitClub.com/>

Officers and Board of Directors:

Jorge Sanchez, President
Mario Lozano, Vice President
Tom Kommatas, Secretary
Janice Miller, Treasurer
Crafton Clift, Director
Eric Fowler, Director
Luis Garrido, Director



Like Us on Facebook! <https://www.facebook.com/groups/BSTFC/>

2022 CFG BOARD OF DIRECTORS

The Collier Fruit Growers Inc. (CFG) is an active organization dedicated to inform, educate and advise its members as well as the public, as to the propagation of the many varieties of fruits that can be grown in Collier County. The CFG is also actively engaged in the distribution of the many commonly grown fruits, as well as the rare tropical and subtropical fruits grown throughout the world. CFG encourages its members to extend their cultivation by providing a basis for researching and producing new cultivars and hybrids, whenever possible. CFG functions without regard to race, color or national origin.

REMEMBER TO RENEW YOUR MEMBERSHIP!

CFG Officers

President, Crafton Clift
Vice President, Bonnie Hawkins
Secretary, Lisa Hare
Treasurer, Rodger Taylor

CFG Board Members

Jorge Sanchez
Micah Bishop
Lisa White
'Daniela Cracuin



VISIT US AT:
www.collierfruit.org



Like Us on Facebook! <https://www.facebook.com/CollierFruitGrowers/>