

The Friends of the Pterocarpus Forest

Global Giving Accelerator Project

September 2018

Introduction

The Friends of the Pterocarpus Forest solicit global support for the expansion of the scope and reach of the public programs at the rare 50.6-acre swamp forest in the heart of Palmas del Mar in Humacao, Puerto Rico.



I. The Friends of the Pterocarpus Forest

The Friends¹ are a group of Palmas residents committed to the conservation and maintenance of the Forest. Our mission is to ensure that this jewel of nature remains accessible to the public for environmental education, passive recreation and scientific research. The Forest is a permanent nature preserve meant to serve to the 40,000 residents of Palmas as well as the people of Puerto Rico and visitors to the Island.

Prior to Hurricane María, in September 2017, the Forest's flora and fauna includes more than 25 species of native trees and plants and 52 native and endemic species of insects, amphibians, reptiles and crustaceans, among others. Some of the rare species that can be found in the Forest are threatened or endangered, such as the Ortégón tree. Other species include two species of the *Coquí*, the emblematic Puerto Rican tree frog, the migrant Northern Waterthrush (*Pizpita* in Spanish), and two species of the endemic Puerto Rican Hummingbird. Hopefully a planned census will show that most species survived.



The dominant tree species in this forest type is the *Pterocarpus officinalis*, an evergreen legume, native to the tropics of America. Until the mid-1950s, these forests were found commonly in coastal wetlands, but urban development and other pressures led to their demise. The handful of forests that remain are few, difficult to access, fragmented and in danger of disappearing altogether.



In 2011, the Friends of the Forest joined the efforts of the Palmas del Mar Homeowners Association (PHA) to rescue and restore the Forest. At the time, the wood was abandoned, having suffered greatly when Hurricane Georges came ashore near Humacao in 1998. Since then, it was overrun with invasive weeds and undesirable thick vines that obscured sunlight, becoming a serious threat to the very survival of the ecosystem.

With the technical advice of the Puerto Rico Conservation Trust and the U.S. Fish & Wildlife

¹ Incorporated as PHA Pterocarpus Forest, Inc., in December 2011 and tax exempt under §501(c)(3) of the United States Internal Revenue Code and §1101.1 of the Puerto Rico Tax Code.

Service a plan for the Forest's restoration was created and implemented. These efforts made it possible in less than five years to restore the Forest as a vibrant and exuberant ecosystem. It was also transformed into a unique eco-tourist attraction, of great natural and ecological value, for passive recreation, environmental education and research.

A Conservation Easement agreed upon between Palmas del Mar Properties, Inc., in collaboration with the Palmas del Mar Homeowners' Association, and the Conservation Trust for Puerto Rico, signed in January 2011, guarantees that this precious ecosystem will be kept in its natural state *in perpetuity*.



Once the Forest was restored, PHA and the Friends began to invest in making it a welcoming place. With investments of \$650,000 – raised from residents, foundations and federal and state government agencies, but mostly the generous support of the Palmas Homeowners, public facilities were constructed. First, an elevated, ¾-mile fiberglass and aluminum boardwalk that winds its way through the interior of the Forest was built.

This was followed by the construction of a 40-foot high, wood, bird-watching tower, and an adjacent, two-story gazebo that can accommodate more than 100 people. The gazebo currently serves as the Visitors Center. Parking facilities, accessible walkways and restrooms were also created. The facilities are open from 6:00 a.m. to 6:00 p.m., 7 days a week, 363 days a year (closed 24 December and 1 January).



In 2013, its first year open to the public almost 4,000 people came to the “new” Forest. In 2016, as word of the Forest spread with the creation of its website and social media presence, we received more than 10,000 visitors. By mid-2017, we'd reached just under 10,000 visitors, with 300 alone at our first “Open House” in collaboration with *Para la Naturaleza*. After hurricanes Irma and María, we were forced to close the interior of the Forest to visitors for safety reasons. We will re-open in January

2019.

Our visitors included Palmas residents; school children; university students; academics and researchers; families; school and church groups; and community organizations like the Boys & Girls Clubs and the Girl Scouts; among others.

It should be noted that the Pterocarpus Forest was fast becoming an important ecotourism attraction in Puerto Rico. This was not totally surprising, since it enjoyed (and will continue to enjoy) the distinction of being the only Pterocarpus forest, of the five that remain in Puerto Rico, which could be accessed easily, available for recreation and as an outdoor classroom for environmental education.

II. The Need

At present and *on-site*, the Forest offers unique experiences with nature and educational information including a general, descriptive brochure; interpretive signage; and opportunities for self-guided and guided tours.

Before María, nearly 100 colorful interpretive signs with information about the flora and fauna, and the functions of the ecosystem, could be found along the ¾-mile boardwalk and areas adjacent. The signs were in English and Spanish.



We offered interpretive, guided nature walks to groups. During the 45-minute tours, a trained guide discusses the history and importance of Pterocarpus forests, the flora and fauna, and pointed out interesting facts and items of interest that may otherwise go unnoticed.

On-line, general information appears on our website (<http://pterocarpus.org/>) and, to a lesser extent, on our Facebook page (<https://www.facebook.com/pterocarpusforest>). The Forest also has a growing presence on Instagram. Information about the Forest is also available on TripAdvisor (https://www.tripadvisor.com/Attraction_Review-g644388-d10022935-Reviews-Pterocarpus_Forest_Palmas_del_Mar-Humacao_Puerto_Rico.html) and, when searching on Google, on Google My Business.

The available educational material and programming are, however, very limited in its scope and breadth -- an observation frequently shared with us by visitors directly and via social media.

For the physical and virtual visitor to fully appreciate and enjoy this fragile and rare ecosystem, and for the Forest to fulfill its mission as “an outdoor classroom” and a venue for environmental education, more, better and more accessible environmental education alternatives need to exist.

The content and orientation of the Friends’ public educational projects would be consistent with the Forest’s environmental education goals:

- (1) To explain the role of tropical Pterocarpus forests in water quality, wildlife habitat, and biological productivity in Puerto Rico;
- (2) To educate about the ecology of herbaceous wetlands and the diverse plants and animals that can be found there; and
- (3) To promote environmental care and responsibility at the community and individual levels.

III. The Proposed Project

With the support of the Friends of the Forest and the global community, we would complete one of four key elements of our public programming: the **Creation of an interactive Tour App.**²

The app would be used for individuals visiting the forest. The interactive guide would include visuals and sound, using the visitor's phone GPS to pinpoint his or her location. The App would present dynamic content about different spots in the Forest, as well as to dynamic areas such as the natural recover process in the wake of two strong hurricanes within weeks of each other.



The “tours” would be available in English and Spanish. The Tour app would be downloadable for free, but would include information on how to support the Forest’s conservation and education programs through the Friends. The tours would replace paper maps and reduce the use of costly printed materials currently available on-site.

Very importantly, the content would be updated on an ongoing basis, over time, insuring that the information was timely and accurate.

The project budget appears below.

Other public programming initiatives under consideration include:

1. **“Pterocarpus Forest in a Nutshell” for Students.** This initiative involves creating exciting, informative and interactive educational materials for students, pre-K through 12, with companion materials for teachers and other group leaders would be accessible on-line (and on-site via a QR-Code). These materials, also in both English and Spanish, would emphasize learning about the natural sciences as well as technology through the Pterocarpus Forest ecosystem and its functions.

2. **Translation of the Website and Materials.** Translation of the current website content, which is in English only, and the materials to be created above, into Spanish. This expansion in the reach of the Forest’s educational programming is critical if it is to be at the service of *all* the people of Puerto Rico, particularly our youth.

3. **Short Videos.** Production of three, 30-second video capsules that will promote the Pterocarpus Forest as an ecotourism / environmental education destination, research center and as an option for tours and field trips. The video capsules will include visuals of the forest recorded by professionals, interviews with experts on tropical forestry and representatives of the Friends of the Forest and collaborating organizations, such as the *Para la Naturaleza*. The videos would be available on our website, and Facebook pages and other social media.

² The cost would include professional fee for creation of the app (requires a programmer) and, depending upon the software, a monthly fee. The fee could be offset by advertising (from local, Palmas restaurants, for example, or real estate companies).

IV. Budget³

Friends of the Pterocarpus Forest is intent upon raising \$23,000 from our friends in Puerto Rico and the global community or the development of the App portion of the Forest's public programming. Funds are requested for:

Item	Request Amount
Educational Consultant(s)	\$ 3,500
Tour App Programming & Production, Software, Fee	3,845
App Content Designer	3,500
Translator(s)	1,875
Total:	\$12,270*

An explanation of these expenses follows.

Educational Consultant(s) -- \$3,500

The Consultant(s) will prepare written content that can be used for the Tour App based upon available scientific research about Pterocarpus Forests, and the 2010 "Palmas del Mar Conservation Easement Supplemental Baseline Documentation Report" prepared by Puerto Rico's leading environmental conservation organization, *Para la Naturaleza*, among other sources.

Tour App Programming and production, Software and maintenance -- \$3,845

Contracted party to create the Interactive Tour App, including cost of software licenses and first-year fees. The cost of the programmer is estimated at \$2,500 (in effect, two tours, one in English and one in Spanish); the cost for the app is \$2,145 (a setup fee estimated at \$995 and a yearly subscription fee estimated at \$350/year).

App Content Designer -- \$3,500

Will be responsible for the design of the content, including organization and placement of text, data, maps, photos and illustrations.

Translator(s) -- \$1,875

Translation of materials created as part of the App project from *either* English to Spanish *or* Spanish to English, as required.

V. Timeframe

The project will begin immediately after the successful conclusion of the Global Giving Accelerator / September 2017, and be completed within six-months.

³ The 2017 PHA Pterocarpus Forest, Inc. budget is attached.

