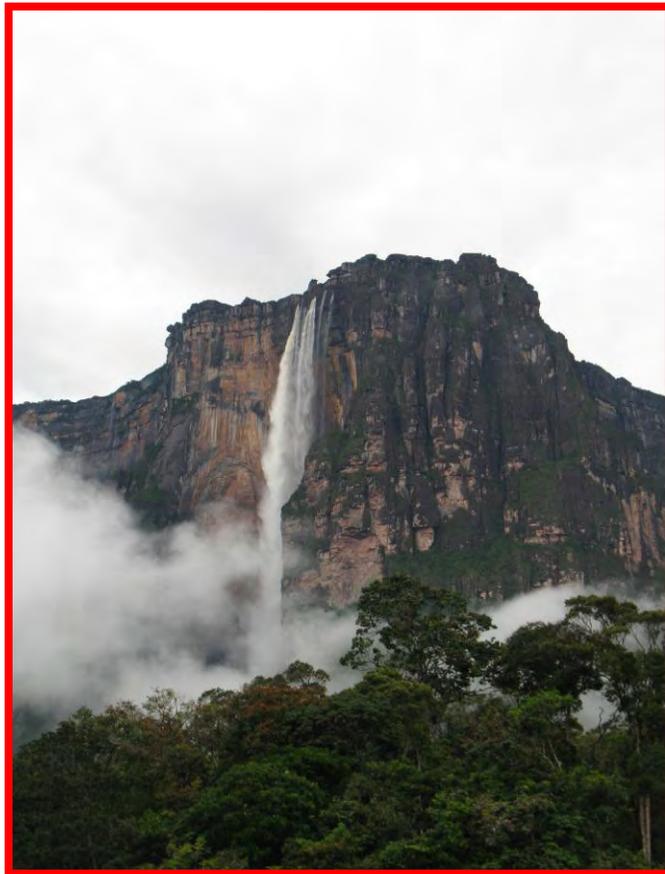


A Plant Hunter's Paradise Angel Falls and Auyántepeui



Angel Falls • Churún Vena • Salto Angel

Karen Angel, Editor

Jimmie Angel Historical Project

INTRODUCTION

A Plant Hunter's Paradise - Angel Falls and Auyántepeui focuses on the botanical aspects of the 28 June to 6 July 2012 "Tribute to Jimmie Angel Expedition" to Auyántepeui and Angel Falls/Churún Vena/Salto Angel in Canaima National Park, State of Bolívar, Venezuela. The expedition was organized by Paul Graham Stanley of Angel-Eco Tours, Caracas, Venezuela and Karen Angel of the Jimmie Angel Historical Project, Eureka, California, U.S.A.

This photo essay is a brief survey of the plants seen in Canaima National Park, Caracas and Ciudad Bolívar and is not intended to be inclusive. The sections titled *Native Venezuela Botanicals* (pages 13-21) and *Botanicals Consumed and a few Zoological Specimens* (pages 22-33) were identified by Venezuelans Jorge M. Gonzalez, an entomologist, in consultation with his botanist colleagues Balentina Milano, Angel Fernandez and Francisco Delascio. In a few cases, the photographs provided to the scientists were insufficient for a definitive identification; in these cases the identifications are "informed" based on insufficient information.

Editor Karen Angel, who lives in Humboldt County, coastal northern California, uses her home region as a standard for comparison for the adaptability of the plants presented to other climate zones. Humboldt County is in **USDA Hardiness Zone 9b**: 25° F (-3.9°C) to 30° F (-1.1°C). Because the USDA's zones, adopted internationally, only reflect minimum temperatures, many home gardeners prefer **Sunset's** zones which reflect minimum and maximum temperatures. Many of the plants seen in Venezuela are grown successfully in coastal Humboldt County which is "**Sunset's Zone 17**: Oceanside Northern and Central California and Southernmost Oregon. Growing season: late Feb. to early Dec. Coolness and fog are hallmarks; summer highs seldom top 75 degrees F/24 degrees C, while winter lows run from 36 degrees to 23 degrees F/2 degrees to -5 degrees C. Heat-loving plants disappoint or dwindle here."

INDEX

Page 2:	Introduction & Index
Page 3:	Expedition Members
Page 4:	Expedition Team
Page 11:	Map of Expedition Camps
Page 11:	Expedition Schedule
Page 13:	Native Venezuela Botanicals
Page 22:	Botanicals Consumed and a few Zoological Specimens
Page 35:	Native Venezuelan Plants seen in Caracas and Ciudad Bolívar Gardens
Page 40:	Non-Native (AKA Exotics) Plants Seen in Canaima National Park, Caracas and Ciudad Bolívar Gardens
Page 48:	The Moods of Angel Falls - Churún Vena - Salto Angel
Page 67:	Arepas – A History by Venezuelan Jorge M. González
Page 70:	Editor and Jimmie Angel Historical Project
Page 71:	Sources and References

EXPEDITION MEMBERS



The core group of fifteen expedition members consisted of (l to r) Paul Stanley (Caracas, Venezuela), Lawrence Eitzen (Freshwater CA), Colleen Edwards (Auckland NZ), Steven Allen (Eureka CA), Patrick Edwards (Auckland NZ), Kitch Eitzen (Freshwater CA), Bruce Amundson (Seattle WA), Karen Angel (Eureka CA), William Peden (Mill Valley CA), Maia Nero (Brooklyn NY), Stephen Davidson (Bayside CA), Kevin Rowland (Seattle WA), John Holl (Silver Springs MD), Robert Allen (New Orleans LA), Alan Mason (Eureka CA) is not in this picture, but he appears on the next page.

Photo: Paul Stanley, 4 July 2012

EXPEDITION TEAM

Many people helped to make the 2012 "Tribute to Jimmie Angel Expedition" a success. ★Zamir "Zam" Hernandez took a group of seven on a tour of Caracas.



Steve Allen, (l to r) Steve Davidson, Alan Mason, Bill Peden, Bruce Amundson, Zam Hernandez, Kevin Rowland, not pictured Robert Allen.

Photo: Karen Angel, 28 June 2012

★Marianela Camacho and ★ Benjamin Rodriguez were with us from June 28th to July 1st. Marianela from the University del Zulia, Faculty Department of Architecture and Design Maracaibo, Venezuela, is a volunteer with Paul Stanley's Venezuela based Fundacion Etnika. Benjamin of Osprey Expeditions is Paul Stanley's tour business partner.



Marianela Camacho
Photo: Karen Angel, 28 June 2012



Benjamin Rodriguez
Photo: Vittorio Assandria's camera 1 July 2012

★ Vittorio Assandria, expert pilot and Auyántepeui exploration historian, provided air transport in his beautiful airplane, (registration #YV1666) for Paul Stanley, Karen Angel and Maia Nero from Caracas to Uruyén and for Marianela Camacho and Benjamin Rodriguez from Kavak to Caracas.



Vittorio Assandria
Photo: Vittorio Assandria's camera, 29 June 2012.



Vittorio Assandria Vittorio's airplane,
YV1666's Tail Feathers
Photo: Karen Angel, 29 June 2012.



Vittorio hosted the expedition members in his beautiful churuata and lodge in Uruyén the evening of 29 June with fine French wines, cheeses and breads.
Photo: Karen Angel 1 July 2012.

The excellent Pemón guides ☆Clemente Lambos and ☆Arturo Berti were with the expedition every minute of the land and water journey from arrival at Uruyén in Canaima National Park to departure from the Gustavo Heny Airport at Canaima Lagoon.



Guide Clemente Lambos in Santa Marta.
Photo: Paul Stanley, 30 June 2012



Clemente relating the legends of Jimmie Angel.
Karen Angel, 2 July 2012



Guide Arturo Berti caught fish on the walk from Uruyén to Kavak.
Photo: Marianela Camacho, 30 June 2012



Guide Arturo Berti on the Rio Carrao.
Karen Angel, 2 July 2012

★ Eulalia Sandoval prepared the meals during the river journey to Angel Falls. She is a member of the Sandoval Family who own the *Campamento Pemón* lodge in Kavak where the expedition dined and a few expedition members stayed.



Eulalia Sandoval wearing traditional Pemón dress, Angel Falls.
Photo: Karen Angel, 3 July 2012

Los Indios Kamarakotos

Paul Stanley gave Señora Sandoval a copy of G. G. Simpson's 1939 ***Los Indios Kamarakotos***, a cultural study of the Kamarata Valley Pemón. Simpson, affiliated with the American Museum of Natural History, NYC, was with Venezuela's 1939 Gran Sabana Expedition. Jimmie Angel was the expedition's pilot-guide.

In 2010, Angel Conservation, founded by Paul Stanley, republished the book in Spanish. The book is given to the Pemón, schools, and other interested parties.

Photo: Karen Angel, 1 July 2012



The *curiaras* (canoes) river crew Capitán was ★Lizardo Castro. He was assisted by ★Nixon Torres, Martin Abati, Leocadio Cardona, Jetulio Perez, and Tamkun.



Rio Akanán rapids.

Photos: Karen Angel, 1 July 2012



Nixon Torres.



Rio Akanán rapids.



Photos: Karen Angel, 1 July 2012

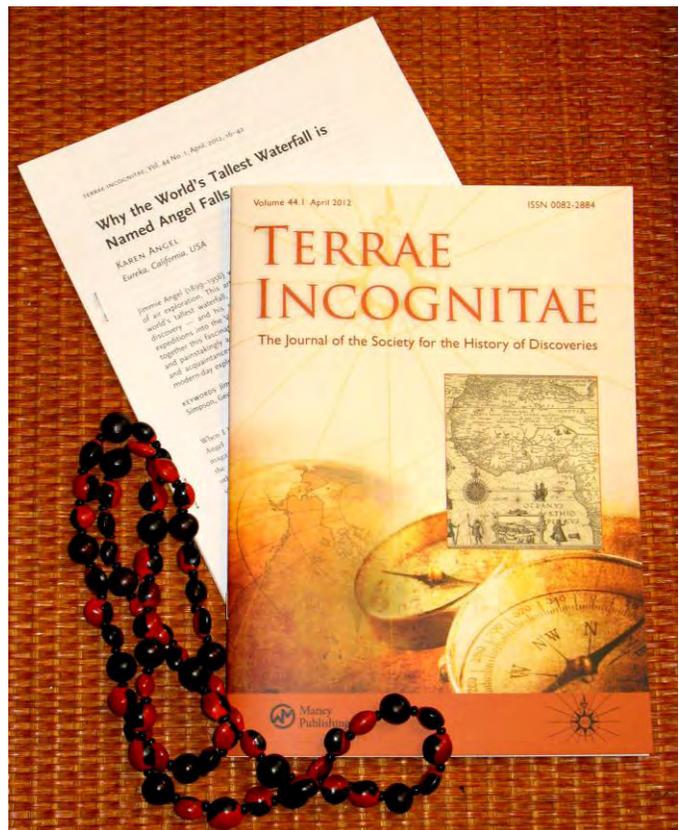
Expedition co-leaders ★Paul Stanley of Angel-Eco Tours and ★Karen Angel of the Jimmie Angel Historical Project planned the expedition's schedule with Paul supervising the air and ground details and Karen recruiting expedition members and sharing the history of Jimmie Angel's explorations.



Paul, Eulalia, Karen and Arturo at Angel Falls.
Photo: Karen Angel's camera, 2 July 2012

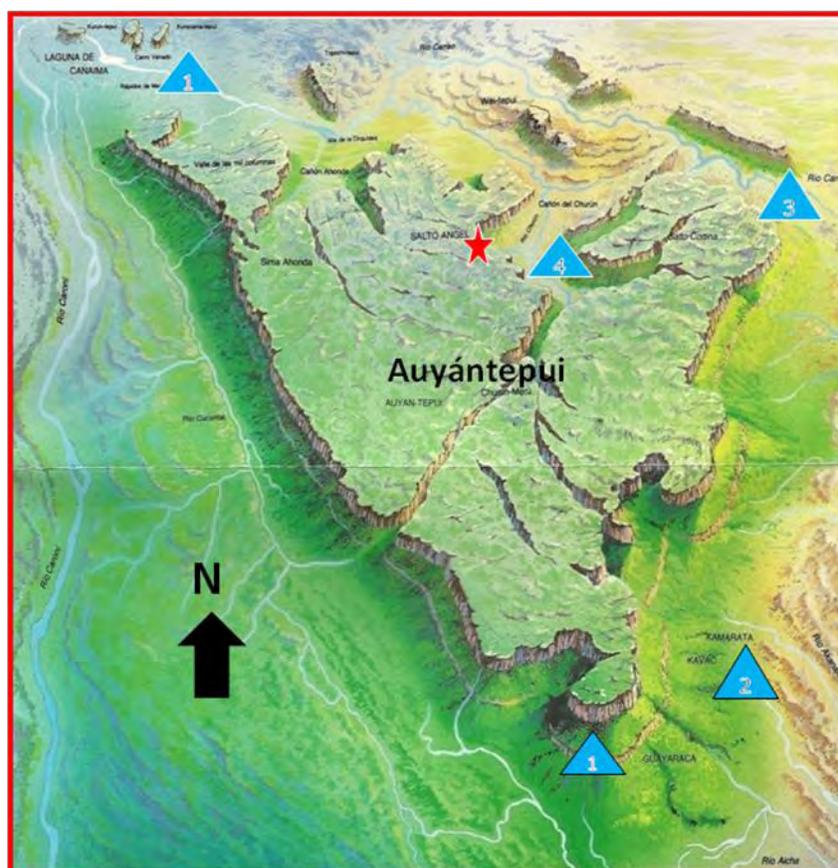


Cultural performer Paul.
Photo: Steve Davidson, 30 June 2012



Expedition members were given Karen's article "Why the World's Tallest Waterfall is Named Angel Falls" published in ***Terrae Incognitae***, April 2012.
Photo: Karen Angel, 2012

MAP OF EXPEDITION CAMPS



- Auyántepeui**
 ★ **Angel Falls**
 3,212 Feet
 979 Meters
- ▲ 1 29 June: Uruyén
 - ▲ 2 30 June: Kavak
 - ▲ 3 1 July: Arena Camp
Rio Carrao
 - ▲ 4 2-3 July: Angel Falls
Rio Churún
 - ▲ 5 4 July: Canaima
Lagoon &
Sapo Falls

EXPEDITION SCHEDULE

Wednesday, June 27: Many expedition members arrived at Caracas Simón Bolívar International Airport from various points in the U.S.A. and are taken to the Avila Hotel. In the evening they met Paul Stanley and Karen Angel for a short welcome and orientation.

Thursday, June 28: Seven expedition members toured Caracas with Zam Hernandez. Most members met Paul Stanley and Karen Angel at the Avila Hotel for dinner and orientation. Additional expedition members arrived in Caracas.

Friday, June 29: Early morning trip to Simón Bolívar International Airport for flight to Puerto Ordaz and transfer to smaller airplanes for flight to Uruyén Canaima National Park, home of Auyántepeui and Angels Falls. Visited Yurwan Canyon's waterfall and swam.

Vittorio Assandria, pilot and Auyántepeui exploration historian, hosted the expedition in the evening in his beautiful Uruyén churuata and lodge. Vittorio served fine French wines, cheeses and breads.

Saturday, June 30: Two groups walk from Uruyén to Kavak. The group on the long walk visited the village of Santa Marta. The group that expected a shorter walk and Jeep assistance walked almost entire way while the group on the long walk had more Jeep assistance. Following the walk, the cooling waters of Kavak Canyon's waterfall called. That evening the expedition members were treated to a special cultural presentation by Pemón children who danced and performed legends.

Sunday, July 1: The expedition members were transported from Kavak to Kamarata by pickup truck and a larger transport truck. Joining the ride were Karen Angel's Pemón cousin Nered Ugarte and his wife Mary and their three children Jose Manuel, Sandal, and Carlos and two Venezuelan physicians in residence at the Kamarata Clinic, Francisco and Ricardo and their faithful dog Broccoli.

Before entering the Pemón village of Kamarata, the expedition members were hosted by Santos Ugarte, Karen Angel's cousin, and his wife Dolores at their churuata and lodge. Delicious fruits and beverages were served with a pineapple presented to each guest.

The expedition members continued on to Kamarata where they transferred to two long wooden canoes (*curiaras*) 35 to 40 feet long with powerful outboard motors (48 hp and 75 hp). The first part of the river journey was on the Rio Akanán, then the Rio Carrao with an overnight at Camp Arenal.

Monday, July 2: The expedition left Camp Arenal in the morning and continued its journey by *curiaras* on Rio Carrao. When the *curiaras* reached Rio Churún, which drains the Churún Canyon (Devil's Canyon) watershed, they entered Churún Canyon. Rio Churún's waters rise and form a river on the top of Auyántepeui before cascading down the massif into the Churún Canyon as Churún Falls. Churún Falls was not seen during the expedition

Soon after entering Churún Canyon (Devil's Canyon), Angel Falls was visible towering over the landscape. Heavy summer rains produced gigantic wings of cascading water which dropped down the massive pink sandstone amphitheater carved in the wall of Auyántepeui. From the Ratoncito Island/Angel Falls Camp on the banks of the Rio Churún, the many moods of Angel Falls were visible during the night and day.

Some expedition members made a quickly paced hike to the Alejandro Laime Angel Falls' Viewpoint (*Mirador*) to see the waterfall up close. 2 July is the anniversary of the 1960 scattering of Jimmie Angel's ashes from an airplane over Angel Falls.

Churún Vena is the Pemón name for the entire waterfall with Churn Merú the name for the lower falls that cascades into the pool that was not swimmable due to the heavy nightly rains.

Tuesday, July 3: A second day at the Angel Falls Camp with another, more leisurely, hike to the Alejandro Laime Angel Falls' Viewpoint.

Wednesday, July 4: Departed camp early in the morning taking the shorter route via Rios Churún and Carrao to Canaima Lagoon where many expedition members walked behind Sapo Falls on the Rio Carrao. Boarded an airplane at Canaima's Gustavo Heny Airport for a flight to Ciudad Bolívar, the capital city of the State of Bolivar

Thursday, July 5: A morning tour of historical section of Ciudad Bolívar included a Venezuela Independence Day celebration/Chavez rally and the home of Simón Bolívar, Liberator of South America. The tour was followed by a drive to Puerto Ordaz for the flight to Caracas for most of the expedition members. From Puerto Ordaz, Larry and Kitch Eitzen continued their Venezuela journeys to the Orinoco Delta and the Los Roques Islands. Steve Davidson, Steve Allen and Kevin Rowland flew to Panama for a week on the beach.

Friday, July 6: Departure from Caracas Simón Bolívar International Caracas Airport for various points in the USA.

NATIVE VENEZUELAN BOTANICALS

Lantana camara: Family is **Veбенaceae**. Native to tropical regions of the Americas and Africa. Grows in the Savannah and along roadsides. Its Venezuelan name is *Cariaquito*. The French Creole name in Haiti is *Kayakeet*. It is also known as 'Spanish flag.' Thrives in **Sunset's Zone 17**.



Lantana camara: Seen between Uruyén and Santa Marta.
Photo: Marianela Camacho, 28 August 2011



Lantana camara (hybrid form)
Photo: Karen Angel, Humboldt County/her Eureka garden, 26 July 2012

***Stachytarpheta sprucei* Moldenke:** Family is **Verbenaceae**. Native to Venezuela, Guyana and Brazil. Seen on the walk from Uruyén to Kavak.



***Stachytarpheta sprucei* Moldenke**
Photo: Karen Angel, 30 June 2012



***Stachytarpheta sprucei* Moldenke**
Photo: Marianela Camacho, 28 August 2011

Costus scaber: Family is **Costaceae**. Guide Clemente Lambos points out ***Costus scaber*** on the walk from Uruyén to Kavak.



***Costus scaber* Ruiz and Pav.** If the central nerve of the leaves is glabrous (without hairs) in the upper side of the leaf, the species is ***Costus spiralis* (Jacq.)**
Photos: (Left) Karen Angel, 30 June 2012; (Right) Marianela Camacho, 28 August 2011



Family is **Apocynaceae**. Seen by Kevin Rowland on Rio Akanán after the rapids.
Photo: Kevin Rowland, 1 July 2012



Palicourea rigida: Family is **Rubiaceae**.
Seen by Rio Carrao Camp.
Photo: Maia Nero, 1 July 2012

Common names for ***Palicourea rigida*** are *Chaparro de vidrio* (Glass Chaparro), *Chaparro bobo* (Fool Chaparro) I do not have a clue how *Chaparro* is translated in reference to this plant. *Chaparro* means "Short squat person"; it refers to the plants in this genus which sort of "look like" they are "shortened" in their development, *cacho de venado* (Deer Antler which is base on the shape of their inflorescences).
Family is **Rubiaceae**.

Jorge M. Gonzalez, Ph.D.



***Meriania sclerophylla* (Naud.) Triana**: Seen by Rio Carrao Camp.
Family is **Melastomataceae**.
Photo: Karen Angel, 1 July 2012

Albizia saman: Family is **Fabaceae**. Native to Venezuela (Central and South America), the fluffy pink flowering tree is generally referred to as Mimosa (Rain Tree in South America, Silk Tree in Asia). Common Venezuelan name is 'Samán'.



Albizia saman: Angel Falls' Viewpoint.
Photo: Kevin Rowland, 2 July 2012



Fuchsia denticulata: Spent blossoms were seen on the trail to Angel Falls.
Family is **Onagraceae**.
Photo: Eric Hunt, Strybing Arboretum, San Francisco, 11 March 2012

For the house plant and greenhouse enthusiast, many species from the family **Bromeliaceae** are found in the Auyántepeui/Angel Falls region. The yellow flowering ***Navia splendens*** was seen growing near the Angel Falls Camp.



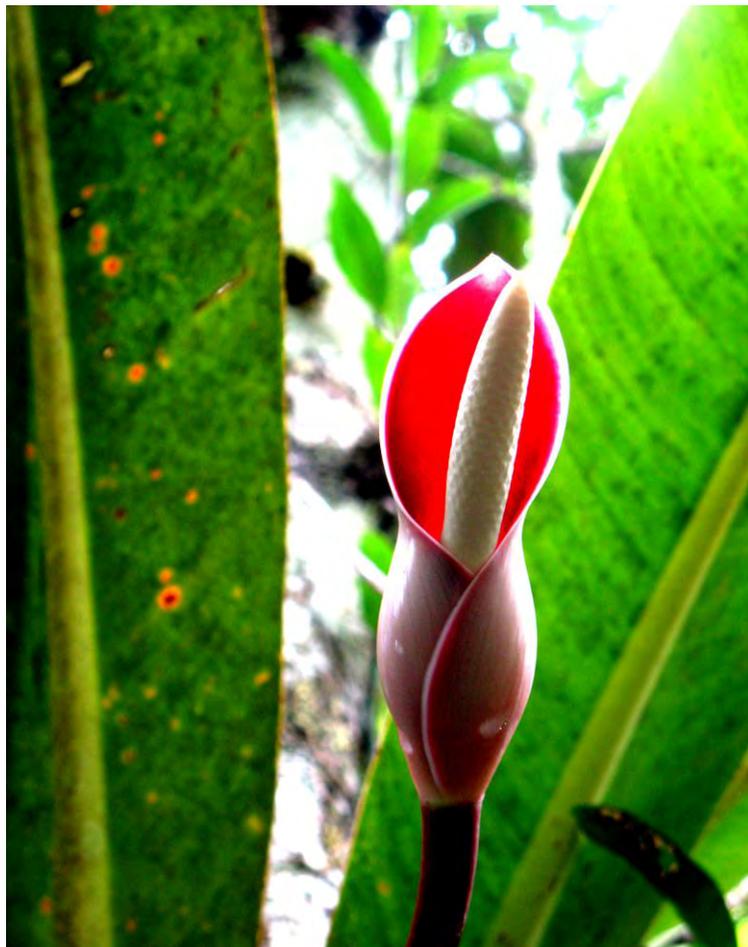
Navia splendens

Photos: Karen Angel, 2 July 2012



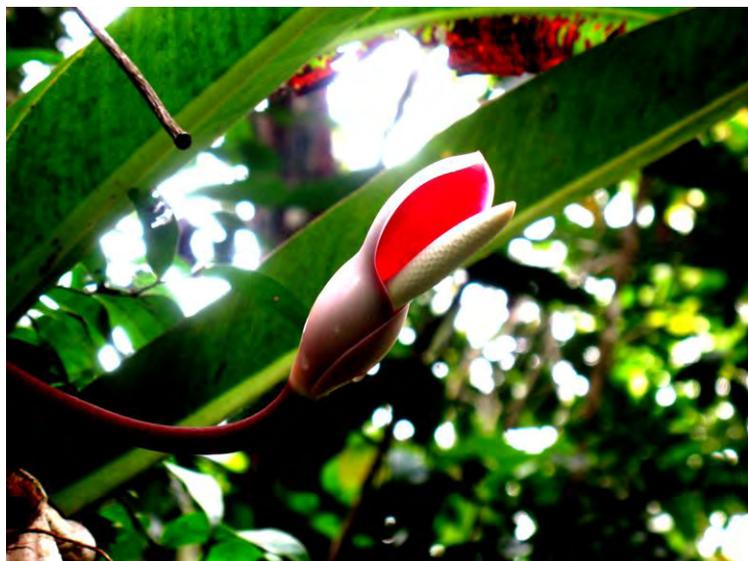
Navia splendens

The elegant *Philodendron insigne* was seen along the trail to Angel Falls and close to the Angel Falls Camp. Family is *Araceae*. The specimen below, close to the Angel Falls camp, was spotted by Steve Allen. The flower has a striking white exterior and a blood red interior.

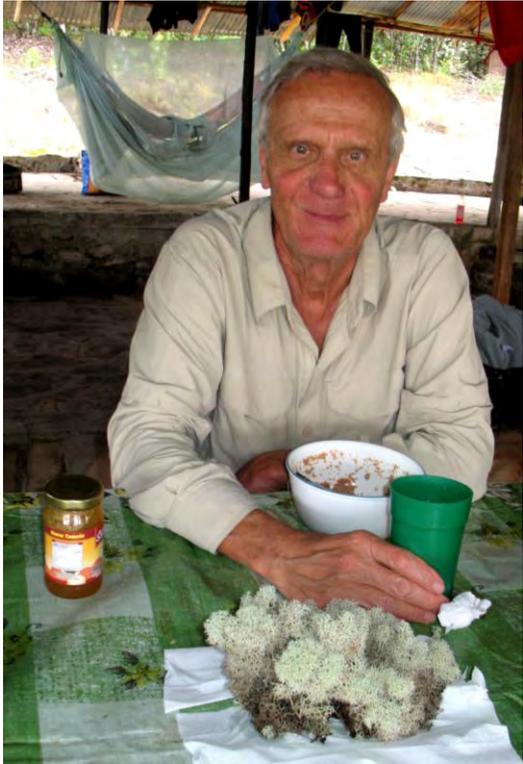


Philodendron insigne

Photos: Karen Angel, 2 July 2012



Philodendron insigne



Bruce Amundsen presented the breakfast table with a handsome lichen *Usnea* sp. at Rio Carrao Arenal Camp. Family is *Parmeliaceae*.
Photos: Karen Angel, 2 July 2012

A few species of fungi were seen growing along the trails.



Phylum *Basidiomycota*. Seen along the trail to Sapo Falls.
Photo: Paul Stanley, 4 July 2012

Auyántepui is an orchid lover's Paradise with many terrestrial and epiphytic species. Family is **Orchidaceae**. ***Cattleya mossiae***, widely distributed in Venezuela, has been the national flower of Venezuela since 23 May 1951. It is known in Venezuela as *Flor de Mayo* (Flower of May). The populations near the Andes bloom from February to May with the coastal populations blooming between May and July. A specimen was not seen during the expedition.



Cattleya mossiae: XVII Exposición Nacional de Orquídeas del Caroní, in Ecomuseo del Caroní, Central Hidroeléctrica Antonio José de Sucre, in Puerto Ordaz, State of Bolívar.

Photo: Marianela Camacho, Puerto Ordaz, 26 July 2011



Odontoglossum: Perhaps ***Odontoglossum praestans***.
Seen along the trail to Angel Falls.

Photo: Kevin Rowland, 2 July 2012

BOTANICALS CONSUMED AND A FEW ZOOLOGICAL SPECIMENS

Dining also provided an opportunity to learn more about the edible plants of Venezuela and Canaima National Park. The expedition's gracious Pemón hosts prepared and presented superb meals of grilled beef, fish, chicken, arepas, pasta, fruit, vegetables, and beverages. Almost all of the food served was transported to the various lodging sites.



Product of Empresas-Polar
Photo: Karen Angel, 26 July 2012

AREPAS

Arepas are ovals of fried or baked corn meal.

See *Arepas – A History* by Jorge M. González, page 69.

Arepas recipes are on pages 23 and 69.

"I am addicted to arepas and will attempt to replicate the baked version using the bag of fine precooked corn meal, "P.A.N. Harina," that I purchase in Venezuela."
Karen Angel



Photo: Nina Terrero, 10 February 2012

AREPAS RECIPE

Arepas were originally made by the indigenous inhabitants of Venezuela. These small corncakes are sold in Venezuelan restaurants called "Areperas" and are stuffed with all manner of fillings like a sandwich.

Ingredients *Makes 5-10 arepas*

- Pre-cooked cornmeal (see notes) -- 2 cups
- Salt - 1/2 teaspoon
- Boiling water - 3 cups
- Oil - 3 tablespoons

The cornmeal used to make arepas is a special, precooked type. The most common brand is "P.A.N. Harina" made by Empresas-Polar. Originally made in Venezuela, most of P.A.N. is now made at the company's plant in Colombia. See page 67 for more information. It is sometimes available in Latino markets. The more commonly found *masa harina* is not the correct cornmeal to use for this recipe.

Method

1. Preheat oven to 400° F. In a large bowl, mix together the cornmeal and salt. Pour in 2½ cups of the boiling water and mix with a wooden spoon to form a mass. Cover with a towel or plastic wrap and set aside to rest for 5 to 10 minutes.
2. Using damp hands, form balls of dough out of about ¼ cup of dough and press to form a cake about 3 inches wide and ¾ inch thick. If the dough cracks at the edges, mix in a little more water and then form the cakes.
3. Heat the oil in a sauté pan or skillet over medium-high heat. Sauté the patties, a few at a time, to form a light brown crust on one side, 5 to 6 minutes. Flip and brown on the other side.
4. When all the patties have been browned, transfer them to a baking sheet and bake in the oven for 15 to 20 minutes, or until they sound lightly hollow when tapped. Serve immediately.

Filled Arepas: Split the arepas in half when finished and scoop out a little of the soft dough filling. Stuff with your chosen filling.

Notes:

- The sautéing step is sometimes skipped and the arepas are simply baked. In the countryside arepas are often cooked on the grill.
- Small arepas can be made and served as appetizers with garnishes on top instead of inside. Or they can be eaten as small biscuits.
- Sometimes a little sugar is mixed in with the dough to form sweet arepas (**Arepas Dulces**). See recipe, page 69.
- Like all recipes, there are variations on the theme.

Many of the plants that are eaten by indigenous people in tropical regions have been cultivated for hundreds, in some cases thousands of years, and have travelled around the globe thousands of miles from their native lands. The plants consumed in Canaima National Park are probably related or hybridized from the species listed below.

- **Cashew** *Anacardium occidentale* native to northern South America.
- **Cassava** *Manihot esculenta* believed to be native to Brazil's Amazon region.
- **Mango** *Mangifera indica* native to the Indian Subcontinent.
- **Maize** *Zea mays L.* (corn) grain domesticated by Mesoamerica indigenous peoples.
- **Orange** *Citrus sinensis* native to Southeast Asia.
- **Peppers** *Capsicum chinense* despite its name, all Capsicums originate in the New World.
- **Pineapple** *Ananas parguzensis* native to the American tropics.
- **Plantain** (banana) *Musa sapientum* or *M. acuminata* native to Southeast Asia and Oceania, probably first domesticated in Papua New Guinea.
- **Sugarcane** *Saccharum officinarum* native to Papua New Guinea and Asia.
- **Sweet palm** (heart of palm) possibly *Areaceae jauari*. Native to Brazil's Amazon region. Also an important food for river fish species.
- **Sweet potato** *Ipomoea batatas* native to Yucatán Peninsula of Mexico and the mouth of the Orinoco River in Venezuela.

Venezuela has the potential to produce most of its food, unfortunately it has not developed sustainable agriculture to feed its population and imports 70% to 80% of the food consumed annually by its people.

Food served to Canaima National Park visitors would be considered heart healthy by most U.S.A. standards. Still, because of the reliance on processed cheese, prepared ham, and fruit juice concentrates, especially at breakfast, meals are in sharp contrast to the traditional Pemón home garden which includes cassava, sweet potatoes, sweet and hot peppers, plantains, sweet and bitter palm, mangoes, oranges, pineapples and cashews. The plants in their diets are supplemented by fish and insects, especially ants and termites. For those who are wondering, termites have a peppery flavor and are typically added to a picante sauce which is used on most everything.



"Termite is in the genus *Syntermes*, Family Termitidae, Subfamily Syntermitinae. It could be *Syntermes molestus* but I need a good picture of the ventral view of the insect to be sure. This termite feeds on grasses." Jorge M. Gonzalez, Ph.D. Entomologist. **Photo: Paul Stanley, 30 June 2012**



Karen Angel smiles as Alan Mason tastes dried grasshoppers, Sandoval Family Kavak Lodge.

Photo: Paul Stanley, 30 June 2012



"The grasshopper is *Tropidacris collaris* (Order: Orthoptera; Family: Romaleidae). It is a nymph, not an adult. The adults have different colors; very common species south of the Orinoco. I have tasted this species roasted in Yutaje, Amazonas. It has an acrid flavor. This species has some strong chemicals and not even birds or lizards eat them. I doubt that it was in the Kavak serving bowl (but you never know)." Jorge M. Gonzalez, Ph.D. Entomologist. **Photo: Paul Stanley, 30 June 2012**

The pineapple is the most famous member of the **Bromeliaceae** family. The native ***Ananas parguzensis***, a somewhat sweet pineapple smaller in size and similar in appearance to the commercially raised ***Ananas comosus***, was seen near the expedition's Arenal Camp on the Rio Carrao 1 July 2012.



Ananas parguzensis

Photo: Karen Angel, 1 July 2012



Ananas comosus presented at Santos and Dolores Ugarte's churuata.

Photo: Paul Stanley, 1 July 2012



Santos Ugarte presents Bruce Amundson a pineapple during the expedition's visit to Santos' beautiful churuata and lodge near Kamarata.

Photo: Karen Angel, 1 July 2012

The sweet pineapples seen growing in village gardens and that were served during meals probably were a hybridized variety such as ***Ananas comosus***.

Anacardium occidentale: Family is **Anacardiaceae**. Common name is cashew. Cashews are native to northern South America.



Anacardium occidentale: Fruiting cashews at Uruyén.

Photo: Maia Nero, 29 June 2012

Manihot esculenta: Family is **Euphorbiaceae**. One of the common names is Cassava. It is believed to be native to Brazil's Amazon region. *Cachiri* is a fermented beverage made by the Pemón primarily from the roots of the *Manihot esculenta*. It is very pulpy and white, tastes slightly fermented (estimated 18 to 20% proof) and similar to a mildly bitter heart of palm beverage. If you are not familiar with the taste of yucca or palm or before you go looking for *cachiri*, it should be noted that it is not the favorite beverage of most visitors. Several members of the group had the opportunity to taste it on their walk from Uruyén to Kavak. Cassava is also used to make the Pemón's traditional flat bread *casaba*.



Manihot esculenta: Growing in the garden of Mervin Camacho.

Photo: Marianela Camacho, her brother's garden, Maracaibo, Venezuela, 6 August 2012



Paul Stanley, Bill Peden, Alan Mason and Steve Davidson tasting *cachiri* in the village of Santa Marta.

Photo: Karen Angel, 30 June 2012



Pemón girl serving *cachiri* at a Canaima cultural event.

Photo: Karen Angel, 2002



Cassava roots in the village of Santa Marta.

Photo: Paul Stanley, 30 June 2012



An Australian cattle dog (Blue Heeler) guarding the cleaning of cassava roots in the village of Santa Marta.

Photos: Karen Angel, 30 June 2012



The processing of cassava roots.

Humulus lupulus: The common hop. Family is **Cannabaceae**. Native to temperate Northern Hemisphere, hops are a primary ingredient in most beers. Polar pilsner beer made by Caracas based Empresas-Polar Corporation is a favorite drink of Venezuelans and visitors. The beer's logo is a polar bear.



Bruce Amundson, John Holl and Robert Allen enjoying a cool Polar at the Avila Hotel 5 July 2012, Venezuela's Independence Day.

Photos: Karen Angel, 5 July 2012



Ah, but don't forget Venezuela's national cocktail *Cubalibre*. Key ingredients are Venezuelan rum made from sugarcane, Coca-Cola, and lime. Sometimes angostura bitters are added, but not on the expedition to Angel Falls. Sugarcane is a tall perennial grass native to Papua New Guinea and Asia. Family is **Poaceae**. Sugarcane thrives as a plantation crop in tropical climates. Rums made by Venezuelan company Santa Teresa, with various levels of quality aging, are popular.



Paul Stanley's Santa Teresa celebration.
Photo: Karen Angel, 26 June 2012



"Santa Teresa 1796" purchased in Airport Duty Free Shop 6 July 2012
Photo: Karen Angel, 30 July 2012

Cubalibre Recipe

Squeeze a lime into a Collins glass, add 2 or 3 ice cubes, and pour in the rum. Drop in one of the spent lime shells and fill with cold Coca-Cola. Stir briefly.

The recipe has a few variations.

Coffea arabica: Family is **Rubiaceae**. *Coffea arabica* is native to Ethiopia. Coffee was in plentiful supply at table. The first plants in northern South American were introduced by the Dutch in the Caribbean. Most coffee grown in Venezuela is consumed domestically.



Coffea arabica

Photo: barloventomagico, Hacienda Gualberto, Teresén, Caripe del Guácharo, noreste de Venezuela, 3 January 2012

Theobroma cacao: Family is **Malvaceae**. Prior to the discovery of oil in the early 20th century, *cacao* beans, especially the rare *Criollo cacao* beans, were the primary natural resource and export from Venezuela. The highly perfumed *Criollo cacao* beans still makes their way into the world's candy and pastry kitchens – primarily France, Germany and Switzerland. Regrettably, today *cacao* plays an almost invisible role in the Venezuelan economy.



Theobroma cacao

Photo: Luisorvalles, 12 February 2010



CACAO

Three different types of *cacao* beans are used in chocolate production. They are the **Criollo** (native to Venezuela), the common **Forastero** (native to Brazil) and a hybrid between the two, the **Trinitario**. Criollo and Trinitario are considered the best *cacao* beans, while Forastero is considered the ordinary or bulk bean for mass production. Over 90% percent of the world's *cacao* is bulk. The remainder is fine/flavour *cacao* from most of the Trinitario and all of the Criollo varieties.

Source: *The Chocolate Revolution*

“The Venezuelan chocolates that I took home with me were made primarily from Trinitario beans with Criollo beans used in La Praline’s ganaches.”
Karen Angel



Young **cacao** plants.



Cacao beans drying.

Photos: Benjamin Rodriguez, Oriente, Venezuela, 29 January 2012

NATIVE VENEZUELAN PLANTS SEEN IN CARACAS AND CIUDAD BOLÍVAR GARDENS

Many of the plants seen in Venezuela are found in Humboldt County's coastal gardens: "**Sunset's Zone 17**: Oceanside Northern and Central California and Southernmost Oregon. Growing season: late Feb. to early Dec. Coolness and fog **are** hallmarks; summer highs seldom top 75 degrees F/24 degrees C, while winter lows run from 36 degrees to 23 degrees F/2 degrees to -5 degrees C. Heat-loving plants disappoint or dwindle here."

Brugmansia: Family is **Solanaceae**. Common name is 'Angel's Trumpet'. Native to tropical regions of South America, along the Andes Mountains from Venezuela to northern Chile, and also in south-eastern Brazil. Thrives in **Sunset's Zone 17** if protected from frost and salt air.



Brugmansia: Seen in Caracas gardens.

Photo: Karen Angel, Humboldt County/Her garden, Arcata CA, July 2004.

Tropaeolum majus: Family is **Tropaeolaceae**. Common name is nasturtium. Native to South America. The hardiest species is ***T. polyphyllum*** from Chile. Leaves, flowers and seeds are edible with the flowers a colorful, peppery addition to salads. Thrives in **Sunset's Zone 17**.



Tropaeolum majus: Nasturtiums were seen in Caracas and Ciudad Bolívar gardens. Photo: Karen Angel, Humboldt County/Center Street, Arcata CA, 24 July 2012.

Heliconia rostrata: Family is **Heliconiaceae**. Common names are 'Lobster claw' and 'False-bird-of-paradise'. An herbaceous perennial native to Colombia Venezuela, Ecuador, Peru, and Bolivia.



Heliconia rostrata:

'Lobster claw' seen in Caracas and Ciudad Bolívar gardens and in Avila Hotel's floral arrangements. It is the national flower of Bolivia.

Photo: www.flowerpictures.net

Passiflora: Family is **Passifloraceae**. The passion vine is a widely distribute plant with species native to South America, USA, China, Southern Asia, New Zealand and Papua New Guinea. Flower parts symbolize the passion of Christ with the crown representing a halo or crown of thorns. **P. manicata** is native to Brazil and Venezuela. Thrives in **Sunset's Zone 17**.



Passiflora jamesonii or **P. mixta**: A form of **Passiflora** was seen growing in Caracas. Photos: Karen Angel, Humboldt County/Fickle Hill Road, Arcata CA, 24 July 2012.



Passiflora jamesonii: 'Coral Glow' or 'Seas' with three-lobed leaves.



Passiflora caerulea: 'Blue Crown Coral Passion Flower' with five-lobed leaves.

Bougainvillea: Family is **Nyctaginaceae**. Named for French admiral and explorer Louis-Antoine Comte de Bougainville (1729-1811). *Bougainvillea*, native to tropical and subtropical South America, is sometimes referred to as the tropical rose because of its thorns. It does well in **Sunset's Zone 17** if protected from frost.



Bougainvillea

Photo: Kevin Rowland, San Miguel de Allende, Mexico 24 October 2011



Bougainvillea's flowers are small, usually white, with each cluster of three flowers surrounded by three or six bracts (leaves) which are the bright colors associated with the plant, including pink, magenta, purple, red, orange, white, or yellow.

Photo: Karen Angel, Humboldt County/ Pierson's Garden Center, Eureka CA, 24 July 2012

Alpinia purpurata: Red Ginger, also called 'Ostrich Plume' and 'Pink Cone Ginger', is native to Malaysia. The actual flower is small and white and at the top of the red plume. Family is **Zingiberaceae**, a family of flowering plants distributed throughout tropical Africa, Asia, and the Americas.



Alpinia purpurata: Seen in Caracas and Ciudad Bolívar gardens and Avila Hotel's floral arrangements.

Photo: Kevin Rowland, Panama City, Panama, 6 July 2012



Photo: www.flowerpictures.net

Alpinia purpurata

NON-NATIVE (AKA EXOTICS) PLANTS SEEN IN CANAIMA NATIONAL PARK, CARACAS AND CIUDAD BOLÍVAR GARDENS

Many of the ornamental plants observed, especially in Caracas and Ciudad Bolívar, have travelled around the world to find a home in Venezuela. Plants native to tropical, subtropical, and the five Mediterranean climate regions of the world (California, Western Cape of South Africa, the Mediterranean, Chile, and Western Australia) are grown in Venezuela.

Many of the plants seen in Venezuela are found in Humboldt County coastal gardens: "**Sunset's Zone 17**: Oceanside Northern and Central California and Southernmost Oregon. Growing season: late Feb. to early Dec. Coolness and fog **are** hallmarks; summer highs seldom top 75 degrees F/24 degrees C, while winter lows run from 36 degrees to 23 degrees F/2 degrees to -5 degrees C. Heat-loving plants disappoint or dwindle here."

Some of the photographs in the report were taken after the expedition by Karen Angel in the northern coastal California cities of Eureka and Arcata (**Sunset's Zone 17**) to illustrate the report.

Bauhinia purpurea: Family is **Fabaceae**. Native to South China and Southeast Asia, common name is 'Hong Kong Orchid Tree'. Generally considered too tender to survive in **Sunset's Zone 17**.



Bauhinia purpurea: Seen in Caracas growing next to the Avila Hotel's outdoor dining area.

Photo: Karen Angel, 5 July 2012

Delonix regia: Family is **Fabaceae**. Common names are 'Royal poinciana' and 'Flamboyant'. Native to Madagascar, it thrives in Venezuela. Several were seen in Pemón villages. A beautiful specimen was growing near the entry to the expedition's Ciudad Bolívar hotel. Too tender to survive in **Sunset's Zone 17**.



Delonix regia: Seen in front of the Kamarata Mission School.
Photo: Paul Stanley, 1 July 2012



Delonix regia
Photo: Kevin Rowland, Panama City,
6 July 2012

Jacaranda: Family is **Bignoniaceae**. Native to Brazil, a favorite tropical tree with trumpet-shaped purple-blue flowers that thrives in Southern California, Australia and Venezuela. Considered too tender to survive in **Sunset's Zone 17**.



Jacaranda cuspidifolia
Photo: João Medeiros, Brazil Botanical Garden, Federal District, 24 October 2010

Tibouchina urvilleana or ***T. semidecandra***: Family is **Melastomataceae**. The velvet leaf, magenta-purple blossom shrub is native to Brazil. It is abundant near Uruyén. The plant is a smaller form than the hybridized ornamental garden 'Princess-Flower' or 'Glory Bush' used in U.S.A. horticulture.



Tibouchina urvilleana or ***T. semidecandra***: Seen near Uruyén.
Photo: Marianela Camacho, 29 August 2011



Hybridized 'Princess-Flower' thrives in **Sunset's Zone 17**.
Photo: Karen Angel, her garden, Humboldt County, Arcata CA, August 2003

Hibiscus: Family is **Malvaceae**. Native to Asia and Pacific Islands. Seen in Caracas gardens. Too tender for **Sunset's Zone 17**, but does well as a house plant.



Hibiscus

Photo: Karen Angel, her house plant, Humboldt County/Eureka CA, March 2010

Strelitzia reginae: Family is **Strelitziaceae**. A flowering plant indigenous to South Africa. Common names include 'Strelitzia', 'Crane flower' and 'Bird of paradise'.



Strelitzia reginae: Seen in Caracas and Ciudad Bolívar gardens. Grows well in at least one **Sunset's Zone 17** Humboldt County, Arcata garden.

Photo: www.flowerpictures.net

Alstroemeria: Family is **Alstroemeriaceae**. Native to Chile, Peru and Brazil. Seen in Caracas gardens. Common names are 'Peruvian lily' and 'Inca lily'. Thrives in **Sunset's Zone 17**.



Alstroemeria: Peruvian lily', hybridized form.

Photos: Karen Angel, her garden, Humboldt County, Arcata CA, 15 July 2007



Alstroemeria: 'Peruvian lily', hybridized form.

Gunnera manicata: Family is **Gunneraceae**. Also known as ***Gunnera brasiliensis*** because Brazil is its native habitat. Its common names include 'Gunnera', 'Giant rhubarb' and 'Dinosaur food'. Given ample water, it thrives in **Sunset's Zone 17**.



Gunnera manicata Seen in Caracas gardens.

Photos: Karen Angel, Humboldt County/Pierson's Garden Center, Eureka CA, 24 July 2012



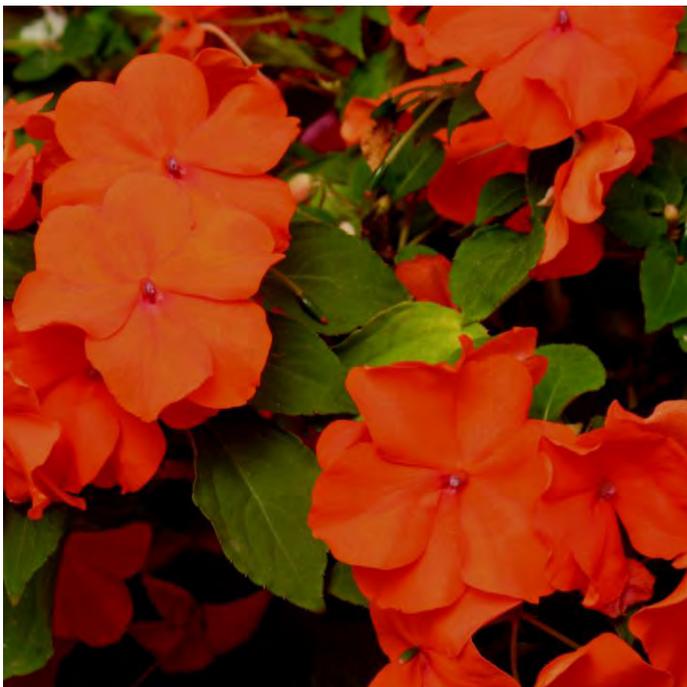
Gunnera manicata

New Guinea impatiens: Family is **Impatiens**. Discovered by USDA botanists in Papua New Guinea in the 1970s, New Guinea Impatiens have travelled the world since. Thrives in **Sunset's Zone 17** if planted in the shade with morning sunlight.



New Guinea impatiens Seen in Caracas gardens.

Photos: Karen Angel, Humboldt County/Pierson's Garden Center, Eureka CA, 24 July 2012



New Guinea impatiens

Agapanthus: Family is **Amaryllidaceae**. Common name is 'Lily of the Nile'. It is **not** a lily and all of the species are native to South Africa from the Cape of Good Hope to the Limpopo River. It thrives in sunny locations in **Sunset's Zone 17**.



Agapanthus: Seen in Caracas gardens.

Photos: Karen Angel, Humboldt County/931 Hill Street, Eureka CA, 24 July 2012.



Agapanthus

THE MOODS OF ANGEL FALLS • CHURÚN VENA • SALTO ANGEL

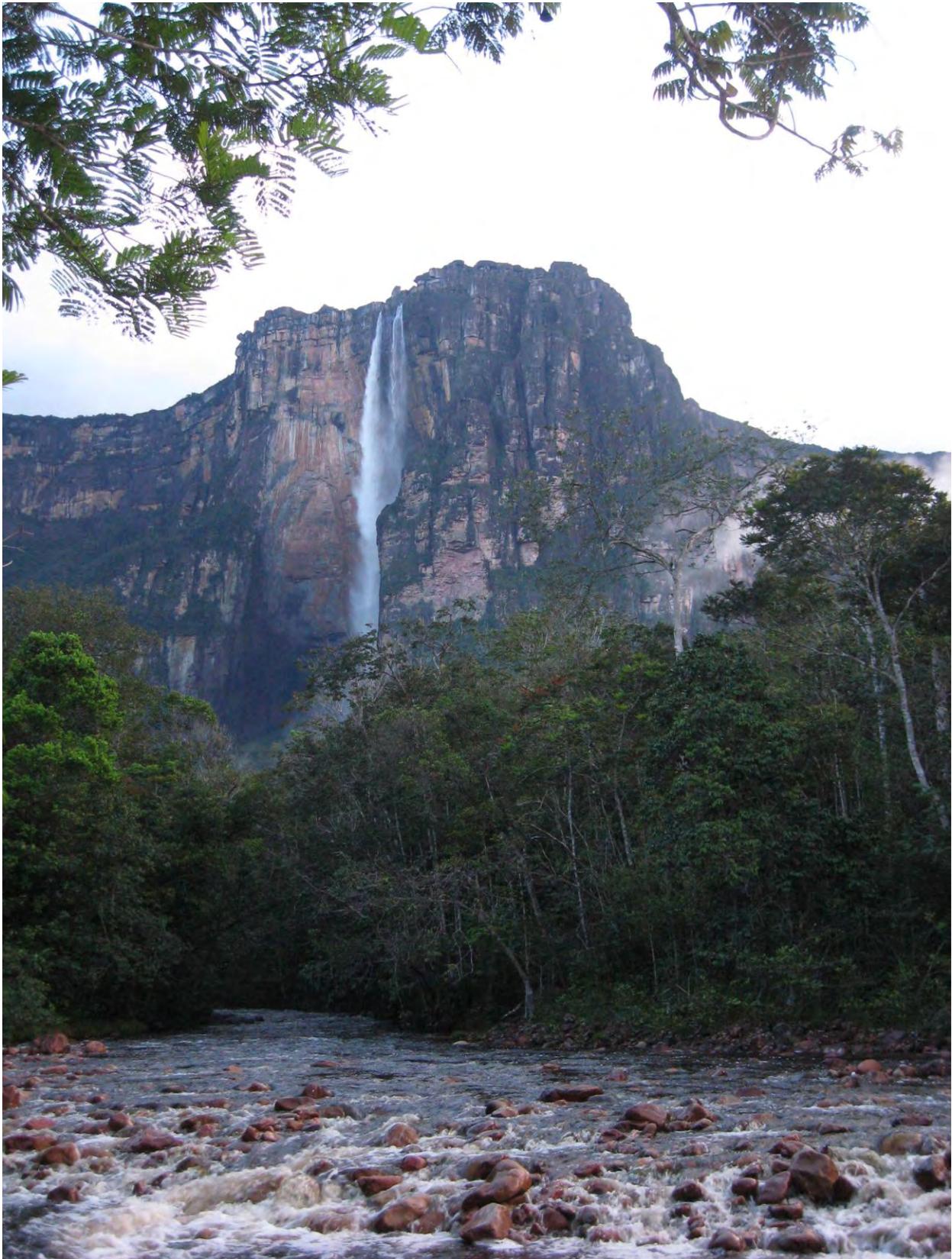
Angel Falls is named for American aviator-explorer James “Jimmie” Crawford Angel (1899-1956) who first saw the waterfall from his airplane 18 November 1933. The waterfall was officially named Angel Falls in his honor by the government of Venezuela in 1939.

Churún Vena is the indigenous Kamarata Valley Pemón’s name for the waterfall. **Churún Merú** is their name for the lower portion of the waterfall.

The Spanish **Salto Angel** translates to Falling Angel.



Midday at Angel Falls • Churún Vena • Salto Angel
Photo: Kevin Rowland, Midday, 2 July 2012



Early Evening at Angel Falls • Churún Vena • Salto Angel, Rio Churún
Photo: Kevin Rowland, 2 July 2012



Midday at Angel Falls • Churún Vena • Salto Angel
Photo: Maia Nero, 2 July 2012



Midday Churún Merú

Photo: Kevin Rowland, 2 July 2012



Midday Churún Merú
Photo: Kevin Rowland, 2 July 2012



Midday Churún Merú

Photo: Maia Nero Midday, 2 July 2012



Noon at Angel Falls • Churún Vena • Salto Angel
Photos: Paul Stanley, 2 July 2012



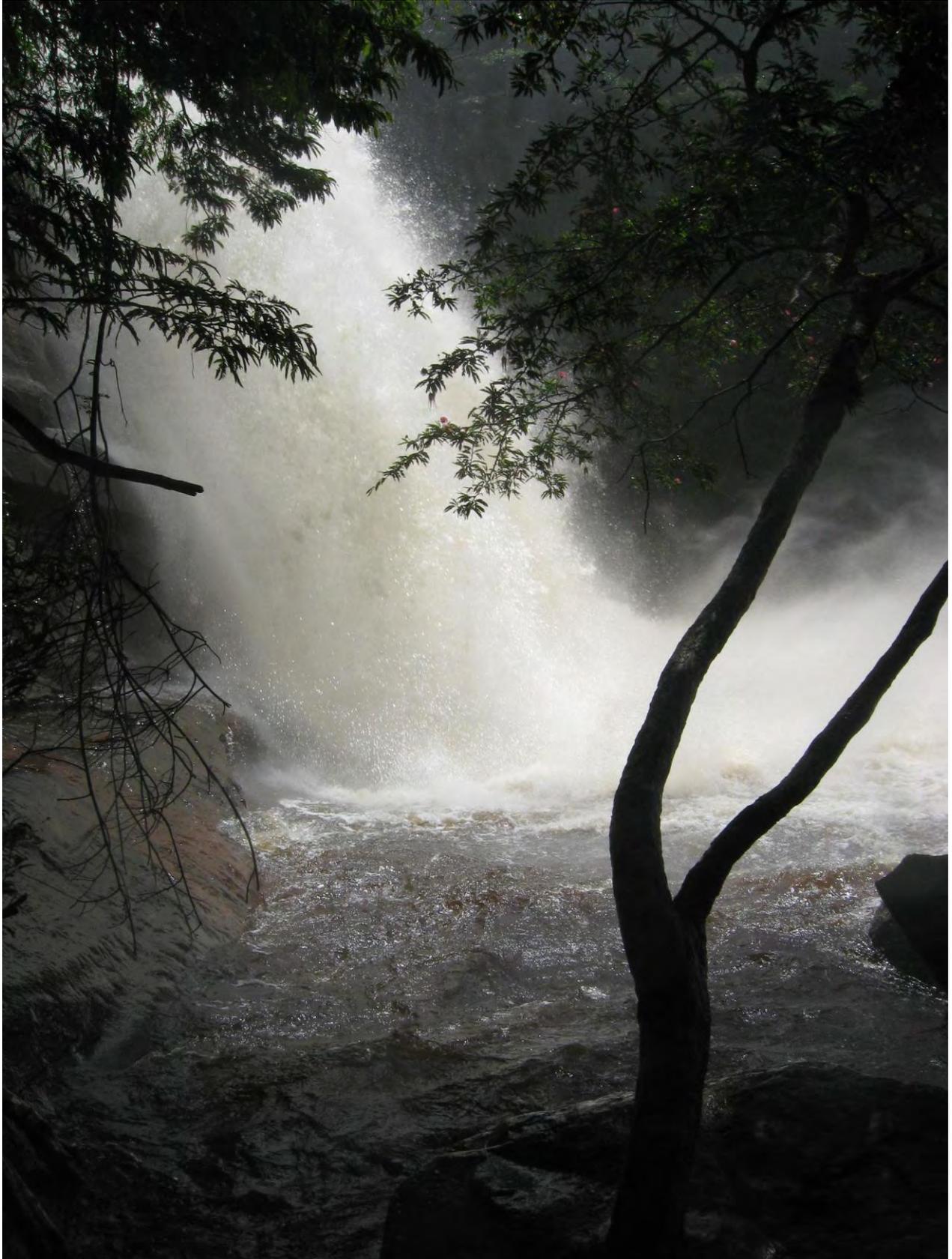
Noon at Angel Falls • Churún Vena • Salto Angel
Photos: Paul Stanley, 2 July



Noon at Angel Falls • Churún Vena • Salto Angel
Photo: Kevin Rowland, 2 July 2012



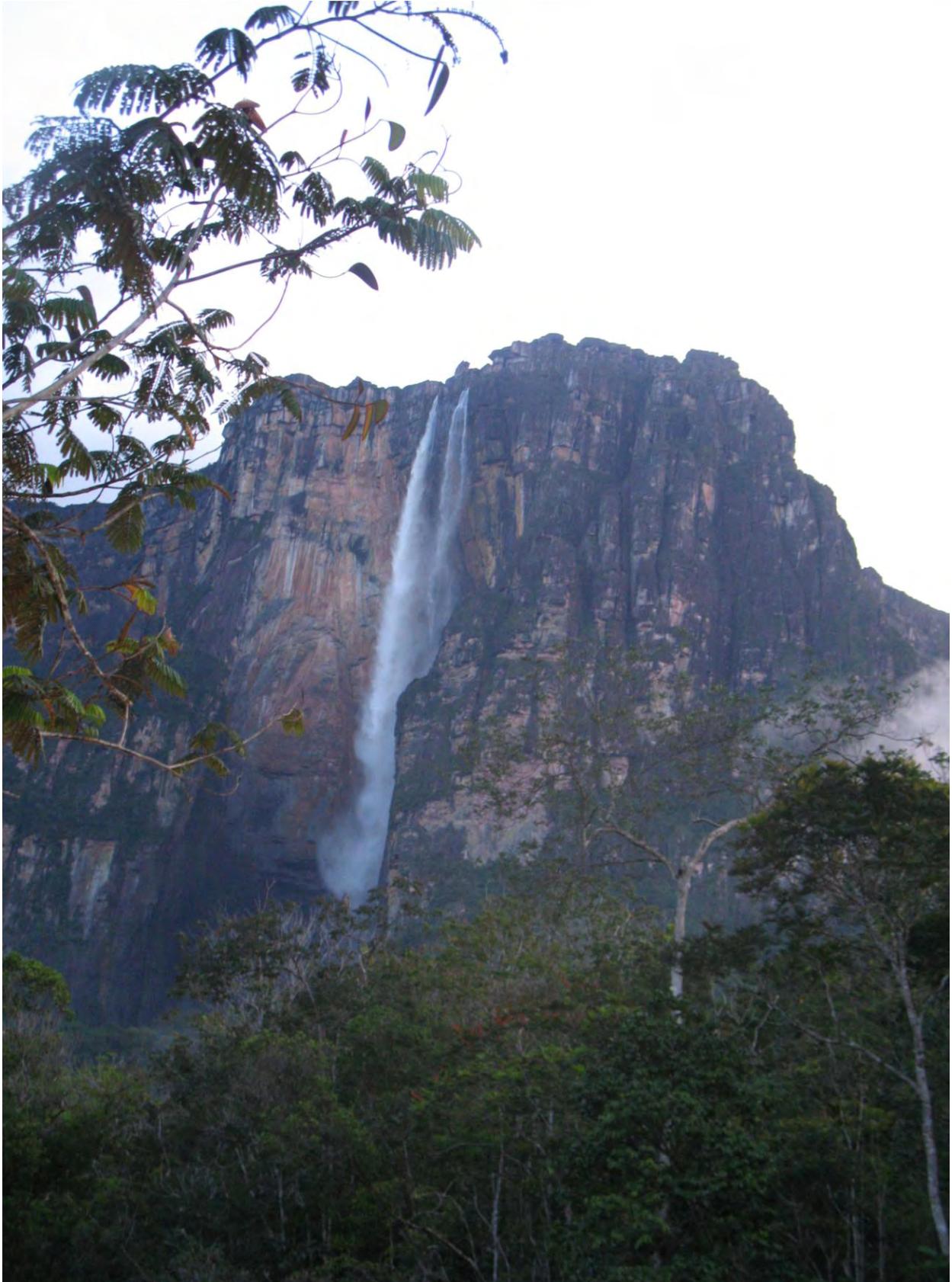
Water rushing below Angel Falls • Churún Vena • Salto Angel
Photo: Kevin Rowland, 2 July 2012



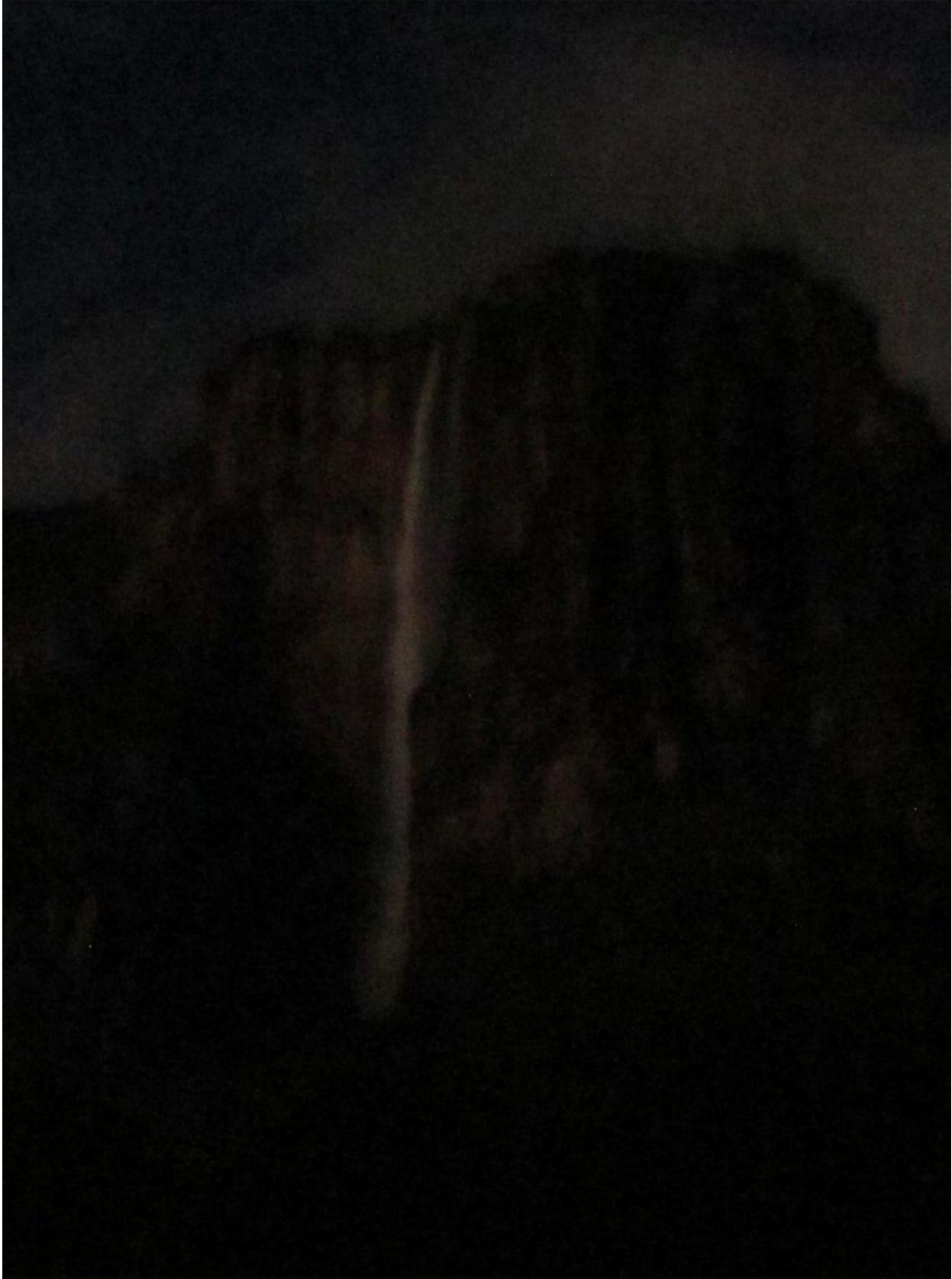
Churún Merú
Photo: Kevin Rowland, 2 July 2012



Afternoon at Angel Falls • Churún Vena • Salto Angel
Photo: Kevin Rowland, 2 July 2012



Sunset at Angel Falls • Churún Vena • Salto Angel
Photo: Karen Angel, 2 July 2012



Moon glow on Angel Falls • Churún Vena • Salto Angel
Photo: Paul Stanley, 2 July 2012



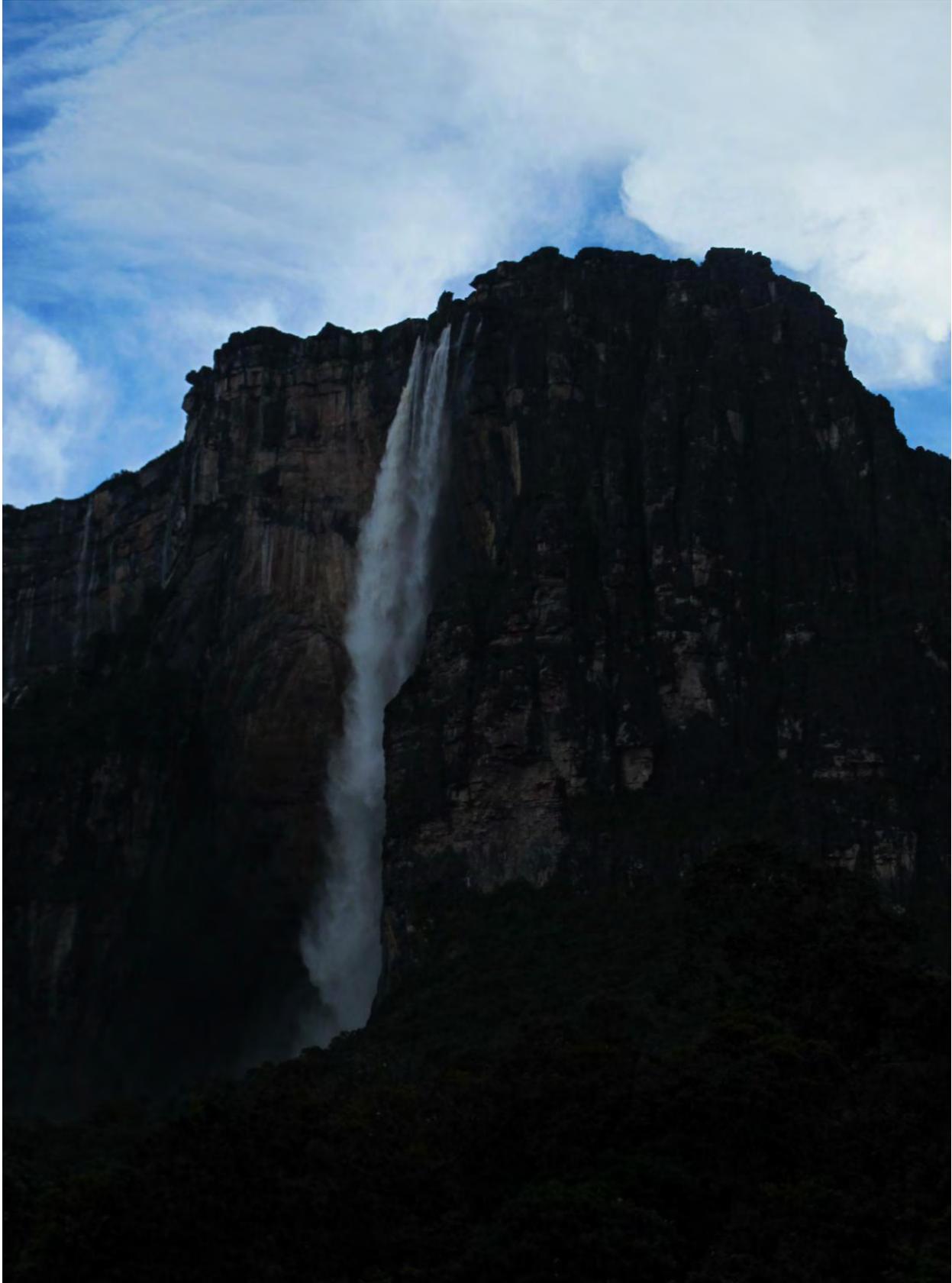
Sunrise at Angel Falls • Churún Vena • Salto Angel
Photo: Karen Angel, 3 July 2012



Morning at Angel Falls • Churún Vena • Salto Angel
Photo: Paul Stanley, 3 July 2012



Morning at Angel Falls • Churún Vena • Salto Angel
Photo: Paul Stanley, 3 July 2012



Late afternoon at Angel Falls • Churún Vena • Salto Angel
Photo: Paul Stanley, 3 July 2012



Sunset at Angel Falls • Churún Vena • Salto Angel
Photo: Karen Angel, 3 July 2012



Sunrise at Angel Falls • Churún Vena • Salto Angel

Photo: Karen Angel, 4 July 2012



Morning at Angel Falls • Churún Vena • Salto Angel
Photo: Karen Angel, 4 July 2012

AREPAS – A HISTORY

by Venezuelan Jorge M. González

Arepas are actually some sort of “tortillas” that originated in Venezuela. They were originally made of ground corn dough that is later cooked. They are similar to *Pupusas* (El Salvador) and *Gorditas* (Mexico).

The word and style of arepas are Timoto-Cuica in origin. Timoto-Cuicas were the natives of Northern Andes of Venezuela. From the Northern Andes of Venezuela, arepas spread everywhere in Venezuela and into Colombia.

The original arepas were labor intensive to make. First you have to take the corn grains out of the tusk. Those grains had to be soaked in water, with ashes (or Calcium oxide), then they have to be peeled and cleaned, and later ground in a *Pilón* (this is like a big mortar system made with wood). Later, a grinding system was invented and it became popular everywhere in Venezuela to do the grinding-peeling (After the boiling and cleaning). In certain areas of Venezuela you can still find this old-fashion method of making the dough for arepas and the arepas made this way are called *Arepas de Maiz Pilado* (or *Pelado*).

After the dough was ready, the arepas were prepared, with slight variations depending on the region of preparation.

Examples:

1- Los Andes (Trujillo state): The arepa “patty” is flat and large (it looks like a thick Mexican Tortilla; about 1 cm (<.5 inches) thick. Once the appropriate shape and size is reached, they were put in a *Budare* (a flat round iron piece on top of one of the kitchen stoves).

2- Zulia State (My family on my mother side): The arepa “patty” is around 12 cm (4.5 inches) in diameter, and about 2.5 cm (1 inch) thick. Once done, it is placed in boiling water for a few minutes. I cannot remember how many, but it is about 5 minutes. They are later taken out, dried and placed on a *Budare* (later and more recently, inside the oven) to make the “hard” peel of the Arepa.

3- Carabobo State (Puerto Cabello) (My family on my father side): The arepa “patty” is small (about 8-9 cm (>3 inches) diameter, thick (2.5- 3.5 cm; 1-1.5 inches) in the center, but not so thick at the borders (It looks like a little “Flying Saucer”). Once made, the arepa was placed on a *Budare*, and after the “hard peel” formed, it was placed inside the oven to cook the inside (in the old times It was placed on a *Budare* placed on a “grill” over firewood - this allowed the “hard peel” to form and to cook the inside of the arepa at the same time).

Arepas were made to accompany any meal (just like bread). You did not have to necessarily "fill" the Arepa. This is the traditional way to eat arepas. However, back in the 1940s a guy from Trujillo state established in Caracas *una venta de Tostadas* (A place to sell "Tostadas"). The Tostada was the way to eat arepas in most of Northern Andes (Trujillo and Merida), Venezuela. To make a Tostada you just split open the arepa, which was toasted in the *Budare*, and put something inside. This place, established in Catia, Caracas, became very popular.

Later in the early 1950s another family (the Alvarez brothers) arrived from Trujillo state and opened their *venta de Tostadas* in La Gran Avenida (an avenue south and parallel to Sabana Grande) close to Plaza Venezuela, in Caracas. The place became highly popular, especially because the Alvarez gave names to their "Tostadas" such as *Dominó*, *Pelúa* (hairy: shredded beef), *Catira* (blond: shredded yellow cheese). These were names of "Tostadas" that were created in *venta de Tostadas*. The Alvarez brothers also created *la Reina Pepiada* (shredded chicken, mayonnaise, and avocado, with *petit pois* [small young green peas for garnishing] in 1955, in homage to Susana Duijm, the first Venezuelan to be crowned "Miss World." After the Alvarez's popularity, Areperas (not "Areperias") became popular.

However, the labor-intensive way of making the dough continued. Since it was complicated, many people did not make the dough in their home kitchens, especially in the large cities of Caracas, Maracaibo and Valencia, but bought the dough from women who specialized in making it.

In the early 1970s, Luis Caballero Mejias, a Venezuelan mechanical engineer, invented a system to produce pre-cooked corn flour (*Harina de Masa de Maiz* or Dehydrated Corn Dough) that eliminated the complicated way to make the corn dough. He asked the Alvarez brothers to test his pre-cooked corn flour and it was a big success. Later, the Polar Corporation bought his patent from Luis Caballero Mejias, and distributed it as "P.A.N. Harina." Today, most of Polar's "P.A.N. Harina" is produced at their plant in Columbia.

This invention increased the popularity of the areperas even more, and the way they serve arepas became the "modern way" to eat arepas, because you could have a complete lunch just by eating a filled arepa. The name "Tostada" switched to just "Arepa." Areperas appeared everywhere. During the late 1990s and early 2000s when Venezuelans started migrating to many countries, we brought "the Arepas" with us! Now you can find "Areperas" in almost any place of the world where a Venezuelan community is present.

AREPAS DULCES

A recipe from Jorge M. González that was taught to him by his mother.

The dough is mixed with *papelón* (raw sugar, brown sugar is a fine substitute) and a few seeds of Anise.

Ingredients

- ½ kg of Pre-cooked corn flour (Most Venezuelans use Harina P.A.N., but there are a few similar to it, if you can find them)
- About a pound of *papelón* (called *pilón* in Mexico; it is raw sugar) (About 5 or 6 tablespoons of brown sugar will work).
- 2 teaspoons of Anise seeds.
- ½ liter Water
- A pinch of salt.
- Oil (for frying)

Method

1. Boil the *papelón* and anise seeds in the water to make light syrup. Let it rest.
2. Once at ambience temperature add a pinch of salt and start mixing the corn flour to make soft but consistent dough.
3. Make little balls, and spread them to make the Arepas (the thinner and larger, the better) One way to do this is by "pushing" the ball on a flat surface with a large plate or a large flat object. To avoid the ball sticking to either the surface or the plate, put a layer of plastic with oil spread on it in between the surface/plate and the dough ball. Remember, the thinner the Arepa, the better it will be.
4. Heat the oil to a boil in a deep frying pan. The trick is that the Arepa should float on the oil while cooking. The oil has to be very hot. Flip the Arepa once you see it is changing color.
5. When thoroughly "brownish" (but not burned!), remove the Arepa from the pan.
6. Eat it with White Cheese! ... And you can feel like a Venezuelan!

EDITOR

Karen Angel is the President (1996 - current) of the Jimmie Angel Historical Project (JAHP), University of California (Davis) Master Gardener (Class of 2002), and former Executive Director of the Humboldt Botanical Gardens Foundation (1998-2007). Her father Clyde Marshall Angel (1917-1997) was the youngest brother of American aviator-explorer James "Jimmie" Crawford Angel (1899-1956) for whom Angel Falls, the world's tallest waterfall is named. Jimmie Angel first saw the waterfall 18 November 1933.

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JIMMIE ANGEL HISTORICAL PROJECT

With the assistance of people interested in the history of exploration and aviation, Karen Angel founded the JIMMIE ANGEL HISTORICAL PROJECT (JAHP) in 1996, Federal Tax Number 68-0372407. The JAHP is incorporated in the State of California as a 501(c) (3) nonprofit, public benefit corporation to foster research and to provide accurate information about aviator-explorer James "Jimmie" Crawford Angel (1899-1956), his friends and associates, and their era of exploration with an emphasis on exploration in Venezuela during the 1920s through the 1940s. The JAHP is also interested in preserving Jimmie Angel's airplane El Rio Caroni which is on display at the Ciudad Bolívar airport, State of Bolívar, Venezuela.

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SOURCES

Photographs:

Karen Angel, Vittorio Assandria, Marianela Camacho, Steve Davidson, Maia Nero, Kevin Rowland and Paul Stanley contributed their photographs from the 2012 "Tribute to Jimmie Angel Expedition" for this report. Special thanks to Marianela Camacho for her assistance finding photographs. When photographs from the 2012 expedition, or a previous expedition, were not available, photographs from the internet were used and credited. Karen Angel took post expedition photographs in the northern coastal California cities of Eureka and Arcata (**Sunset's Zone 17**) and Marianela Camacho took photographs in Venezuela to illustrate the report.

Plant and Insect Identification:

JAHF Board Member and Vice President Jorge M. González, Ph.D., Texas A&M University, Department of Entomology, College Station, Texas, provided insect and assisted with plant identification. He consulted with his good friends Balentina Milano, Angel Fernandez and Francisco Delascio, all botanists from Venezuela, to corroborate plant identifications for *The Native Venezuela Botanicals* (pages 13- 21) and *Botanicals Consumed and a few Zoological Specimens* (pages 22-33) sections.

Jorge M. González, Ph.D., also provided an *Arepas History* and recipe (see pages 67-69).

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