

William V. Davidson

THE CEIBAS OF CENTRAL AMERICA: BELIZE



Memphis, Tennessee April 2022

The Ceiba Trees of Belize

English edition --- on line Design: Andrew Bowen Davidson Text and photographs, prepared by author Field investigations in Belize, 1981, 1983, 2018

Front Cover: Entry vegetation at soybean farm, Cayo District, ceiba and two Traveller's/Peacock Palms (*Ravenala Madagascariensis*).

Cover Photograph: Courtesy Tiffany White, Memphis TN, January 2022.

CONTENTS

Preface v	
Dedication v	
Introduction 1	
Distribution of "Ceiba" and "Cotton Tree" toponyms 2	
Historical notices 3	
Our 2018 Ceiba Survey 6	
Ceiba Concentrations 10	
Belmopan 10	
Orange Walk 17	
Spanish Lookout 21	
Central Farm 27	
Modern Cultural Settings of the Ceiba 29	
The Spared Ceibas 29	
Eco-Tourism Ceibas: The Jungle Lodge/Resort Sites 34	
Cotton Tree Lodge 35	
Belcampo Resort 38	
Lower Dover Lodge 40	
Ceiba Maya Beach development 40	
Transportation Ceibas: roadside, entry trees, airport, buses	42
Government, Business Sites 48	
Sports fields/parks 54	
Water related sites – Riverine, bridges 56	
Sacred ceibas: Church, cemetery 59	
Indigenous/Ethnic Interactions 61	
Ceibas at Maya Ruins (Caracol, Pusilha, Lubaantun, etc.)	61
Mestizo 62	
Creole 62	
Maya, Kekchi 63	
Maya, Mopan 64	
Maya, Yucatec 64	
Garífuna 65	
East Indian 66	
Mennonite 66	
Concluding remarks 66	
Acknowledgements 68	
Bibliography 68	

Preface

This report on the cultural settings of *Ceiba pentandra* in Belize derives primarily from a slow, deliberate, automobile field trip over the country in March 2018. The author was accompanied by wife Sharon and geographer Craig Revels, known by his long-time *colegas del campo* as "Co.lec.tah."

For his helpful insights and dedication . . . this piece is dedicated to him.

Thanks, Craig . . . er . . . I mean, Colectah.

Dedication For Professor Craig Revels, geographer



Figure a. Shoe-less Colectah, resting after a hard day in the field. Looks like peanut butter crackers and cokes for dinner this evening.

Introduction.

The physical environment of Belize plays a key role in the country-wide distribution of ceibas. For example, the seasonally-inundated longitudinal band just inland from the Caribbean coast, the pine-covered gravel soils of the east coastal plain, and the upland pine regions have virtually no ceibas. On the other hand, ceibas are frequent in the "advanced forests" (the "stands of lofty trees") (Standley and Record 1936: 24) and in the cleared pasture lands of central Belize where they are prominent as the only trees spared.

In his recent book on the forests of Belize, Bridgewater (2012) characterizes the ceiba throughout the text: "[In Belize] *Ceiba pentandra* is called ceiba, or cotton tree" (p. 96), "it is an emergent tree along streams" (p. 100), "bats pollinate the ceiba" (p. 289), "wind disperses its seeds" (p. 297), ceibas have strong buttresses" (p. 305), "ceibas live over 100 years" (p. 307), and "ceiba is a hurricane survivor" (p. 318). Earlier foresters made little of the tree (Record 1930, 1931).

Large, old ceibas provide an important ecological role within their surroundings. Thomas Gann (1926: 144-49) recorded one of the most readable accounts of how a large river bank ceiba served its nearby faunal residents. While along the Río Grande, north of Punta Gorda, he observed:

"gigantic trees . . . [which] were like immense apartment houses, with all sorts of quaint and curious tenants, to whom some part of the great tree, from topmost attic of swaying branch to lowest cellar of under-water root, was 'home.' In one of these, a huge wild cotton-tree, a pretty little flycatcher had built her nest . . . Her only danger [was] a crested lizard . . . Within the hollow trunk, which appeared from its charred interior to have, at some time, been lightning-struck, a colony of tiny bats had taken up their quarters, the cool, dark interior forming an ideal home for them during the day . . . Securely hidden in the middle of the foliage was the nest of a pair of tick-birds [who] kept up an incessant quarrelling and chattering all the time . . . In the clay bank, by the side of one of the roots near the river surface, between wind and water as it were, was a narrow passage leading to a comfortable, little adobe chamber in which a gorgeously coloured, tiny kingfisher had built her nest.

The wild cotton-tree had many other than feathered tenants, however, and in the lowermost basements, beneath the roots, one on the landward, the other on the water side, lived two gentlemen . . . the gibnut [who] had dug himself a comfortable burrow beneath the great roots of the tree . . . and the water-dog or otter [whose] front door was beneath the water, and opened into a passage that led to a comfortable den.

The insect population of our wild cotton was practically legion, [including white and black ants, paper wasps, bees, butterflies, and beetles.]

[Further, at the vado] a lumbering tapir, or mountain cow, had come down to drink, and been precipitated into the river by a small mud slide . . . " [end]

All interesting natural history, but our focus in this report is the cultural context of the ceibas/cotton trees of Belize.

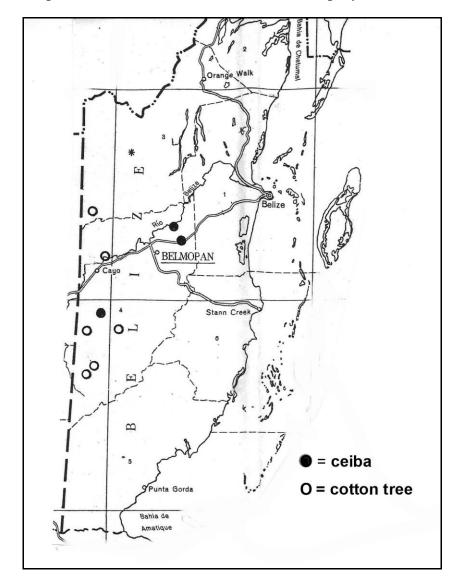
*** *** ***

Because of its political and settlement history, the demographics of Belize make the country an obvious outlier from the rest of Central America. The former colony known as British Honduras, gained Independence in September 1981. Surrounded by Spanish America and in the process of Hispanicization, Belize remains an English-heritage enclave, with no less than eight easily recognizable ethnic groups encountered on a regular basis (Davidson 1987).

Such cultural diversity is reflected in naming *Ceiba pentandra* in Belize. For the largest group, the mestizos, the tree is called "*ceiba*." "*Cotton tree*" is normally employed by the Creoles, the second most-populous people. "*Gumaga*" ("*kumaga*") is the word for the tree in Garífuna. For the indigenous Mopan, many recently entered from Guatemala, "*yaxché*" is the term. The same word is used by the Yucatecan Maya of the north. "*In.up*" is said by the Kekchi Maya of the south. An elderly East Indian man in southern Belize told me the tree was "*se.man*." The older German-speaking Mennonites still use "*kapokbaum*," while the younger kids say "*cotton tree*" or "*ceiba*."

Distribution of "Ceiba" and "Cotton Tree" Toponyms.

The 1/50,000 maps of Belize show nine "ceiba" places, all but one located in the Cayo District. (See map 1.) Six include the word "ceiba," all in the west-central Spanish-speaking part of the country, relatively near the border with Guatemala (Ceiba, Ceiba, Benque Ceiba, Ceiba Camp, Río Ceibo Grande, Ceibo Chico Creek). The Spanish term ceiba is used, not the Mayan term yax.che. The three other places are "cotton tree" sites, the appropriate term for the Creole English-speaking (Caribbean) area of the country (Cotton Tree village, Cotton Tree Bank on Belize River, and Cotton Tree Creek). In the south, the Mopan Maya use ya'ax'che, yaas.ce' and yax.che and the Keckchi (Queqchi) use mox, in.up, and iinn.up for the ceiba, but those terms do not appear as places on 1/50,000 maps.



Map 1. Locations of "Ceiba" and "Cotton Tree" toponyms in Belize.

Some Historical Notices of Ceibas in Belize.

While Belize owes much of its history to the exploitation of trees – first, of logwood (dyewoods) and later mahogany – according to early travelers, ceibas were apparently not of much interest. The motto of the country, "sub umbra floreo" [under the shade I flourish], and the tree on national cost of arms and flag symbolize the mahogany.

Perhaps the earliest reference to the tree in what is now Belizean territory is from the trip of the Dominican Fray Joseph Delgado, who during the summer of 1677 on the Río Yaxal (now Mocal) of southern Belize looked for a day in the forest for a "proper tree" to make a sea-worthy dugout when "God gave us a ceiba tree" to make "a beautiful pirogue." (Stone 1932: 267)

The English navy captain George Henderson (1809: 89-90), who visited the Bay of Honduras and Mosquitia during the first decade of the 1800s, knew the ceiba as "The silk cotton tree, a species of the Bombax of Linnaeus," which offered a crop of cotton three times a year and whose "trunks were used for canoes and smaller vessels." In another rare description of the tree, in 1882, Daniel Morris, botanist of the Jamaican Gardens, saw along the banks of the "Old River" [modern middle Belize River] "Magnificent trees of the Ceiba, or silkcotton-tree, . . . with buttresses like those of a huge castle. The first branches were generally some 80 or 100 feet from the ground. Above, their wide-spreading massive branches were literally clothed with orchids, wild pines, and a perfect garden of parasitic vegetation. Hanging along the stems were numerous "lianes" (sic) or "withes," here called "tie-ties," looking like the festooned ropes of a ship."

Many other well-known travelers, such as Cook (1765), Fowler (1879), and Gibbs (1883) do not mention the tree.

Sam Record, one of the earliest foresters who worked in British Honduras, got the record straight on "ceiba" after a second publication. First, in *Tropical Woods* 24: 15-28 (1930), he listed "ceiba" as "*Gossypium mexicana R.*" (p. 18). In *Tropical Woods* 25 (1931): 23-24, he issued his correction: "Ceiba, which is also called Cotton-tree, was inadvertently referred to *Gossypium mexicanum* instead of to *Ceiba pmtandra* (L.) Gaertn." Good for Sam. He also noted the Mopan term of "yaxche" (p. 24).

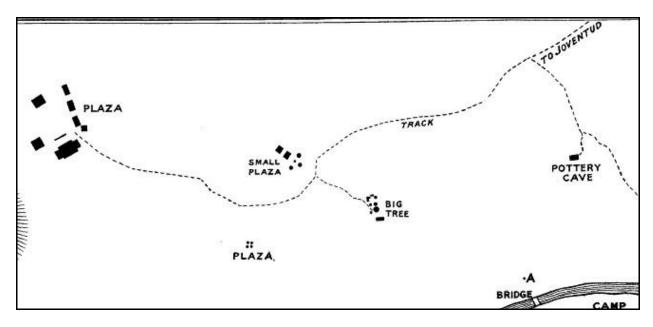
Anderson (1958: 57) noted that the floss of the "polak" (balsa, *Ochroma limonensis*) is "claimed by some to be superior to kapok" for stuffing pillows and cushions because "when it becomes crushed down by use it can be readily fluffed up again by placing the pillow or cushion in the sunlight."

Belize might also be the country of the largest known ceiba. In 1926, when the British Museum sponsored archeological projects in British Honduras, Thomas Joyce, Thomas Gann, and others found atop a mound at Pusilhá . . . "About ¼ mile from the plaza . . . the largest tree I have ever seen." (Joyce *et al* 1928: 339) "The whole complex is dominated by a giant silk cottonwood tree the branches of which still spread over the area of the site, though the crown has been blown off some 40 feet up." (Joyce 1929: 450)

Figure b. Thomas Gann and crew at the "Big Tree" of Pusilha, 1926-27. Source: British Museum, lantern slide, registration number AM.G.T.2875.



Map 2. Sketch of Pusilha site, locating the "Big Tree" mounds complex. (Gruning 1930: 479, British Museum, lantern slide, registration number AM.G.T. 2844)



Our 2018 Ceiba Survey.

After a slow auto survey of much of the country in March 2018, the truism of landscape observation was confirmed: "the closer one looks, the more that can be found." Lots of ceibas exist Belize. We did not survey Belize City, but did locate over 300 trees in cultural context. According to category, by far most ceibas seem to have been spared on private lands or associated with tourism. Many were also related to roadways.

Table 1. Distribution of ceibas in Belize, according to region and category, 2018.

DISTRICTS (6)	Toponyms	Church,	Cemetery	Sports	Government,	Transportation:	Water:	Private:	Total
	"ceiba"	w or w/o		Field,	Education,	Roadway, Entry,	Bridge, Vado,	Home,	Ceibas
Places	"cotton tree"	plaza		Park	Business,	Bus Sta., Airport	Vega	Pasture,	
					Tourism			Spared	
BELIZE	9	6	4	24	116	53	14	102	319
BELIZE District	0	0	0	0	3	5	0	5	13
Belize City (no survey)	-	0	U	U	0,1,0,0		0		1
La Democracia					2 @ zoo				2
Ladyville, Belize City airport						5 airport			5
Revenge Road, east								1,0	1
Sandhill Willows Bank								1,0 0,3	3
WIIIOWS BATIK								0,3	3
CAYO District	8	4	2	8	72	20	5	51	162
Belmopan				1,0	0,3,0,1	1 entry	1 bridge	4,5	16
Benque Ceiba	1					,	0,2,1		3
Benque Viejo						1	, ,		1
Bfree Research Station					0,0,0,2				2
Billy White					0,0,0,2			0,1	1
Botanic Gardens					0,0,0,1				1
Bullet Tree Falls					0,0,0,1	1 entry			1
Cahil Pech ruin						1			1
Calla Creek								0,1	1
Caracol ruin					3 in ruins				3
Ceiba	1				3 111 1 111115				?
Ceiba Camp	1								?
Ceibno Chico Creek	1								?
Central Farm					3,2,2,0			2,12	21
Cotton Tree	1							0,2	2
Cotton Tree Bank	1							1,1	2
Cotton Tree Creek	1								?
Cristo Rey								1,0	1
Esperanza		1			0,1,0,0			1,0	3
Guanacaste National Park				0,2					2
Negroman						2.0.0.0		1,0	3
Rio Ceibo Grande	1								?
San Antonio								1,0	1
San Ignacio			1	0,1	1,2,0,0	1,0,1,0			7
San Jose Succotz						4,1,0,0	1		6
Santa Elena				3,1	0,0,1,0	1 entry			6
Santa Familia		2	1		0,1,0,0			2,1	7
Spanish Lookout (partial)		1			0,1,4,0	5 roadside		3,9	23
Teakettle								0,1	1
Unitedville								2,0	2
Eco-tourism/jungle lodges:								-	
Banana Bank					0,0,0,4			-	4
Black Rock Lodge					0,0,0,1				1

DISTRICTS (6)	Toponyms	Church,	Cemetery	Sports	Government,	Transportation:	Water:	Private:	Total
	"ceiba"	w or w/o		Field,	Education,	Roadway, Entry,	Bridge, Vado,	Home,	Ceibas
Places	"cotton tree"	plaza		Park	Business, Tourism	Bus Sta., Airport	Vega	Pasture, Spared	
Caves Branch Lodge					0,0,0,1				1
Chaa Creek Lodge					0,0,0,21				21
Chaya Maya Jungle Lodge					0,0,0,2				2
Clarrisa Falls Lodge					0,0,0,1				1
Dream Valley Resort					0,0,0,1				1
Jaquar Paw Lodge					0,0,0,1				1
Ka'ana Resort					0,0,0,1				1
Lower Dover Lodge					0,0,0,0	1 entry			1
Macaw Bank Jungle Lodge					0,0,0,3				3
Mystic River Resort					0,0,0,1				1
Parrot's Nest Lodge					0,0,0,1				1
Sleeping Giant Lodge					0,0,0,1				1
Summer Song Lodge					0,0,0,1				1
Table Rock Jungle Lodge					0,0,0,3				3
Yaxche Jungle Camp					0,0,0,1				1
COROZAL District	0	1	1	6	6	5	0	2	21
Calcutta						1 roadside			1
Carolina		1		1,0	0,0,1,0				3
Chan Chen				1		1			2
Chunox				1					1
Consejo, rural					0,0,0,1				1
Corozal					2 med center				2
Libertad					1				1
Louisville			1		1			2,0	4
Patchacan				1		1			2
Ranchito						1 entry			1
San Joaquin				0,1		,			1
Santa Elena				-,-		1 entry			1
Sarteneja				1					1
ORANGE WALK District	1	0	1	10	16	10	4	23	64
Carmelita			1			1		2,0	4
Ceiba	1							,	?
Lamanai ruin						1			1
Orange Walk				3,3	0,5,5,0	2,1		5,0	24
San Esteban				-,-	,-,-,-	,	3 bridge	-,-	3
San Lazaro				1			1 vega	0,2	4
Shipyard (partial)				_			2.000	1,8	9
Trial Farm				3	1			3,0	7
Yo Creek					3,0,1,0	5 roadside		`1,1	11
Eco-tourism/jungle lodges:					3,0,1,0	JIOUUSIUE		±,±	11
Chan Chich Lodge					0,0,0,1				1
Chan Chich Louge				İ	0,0,0,1				

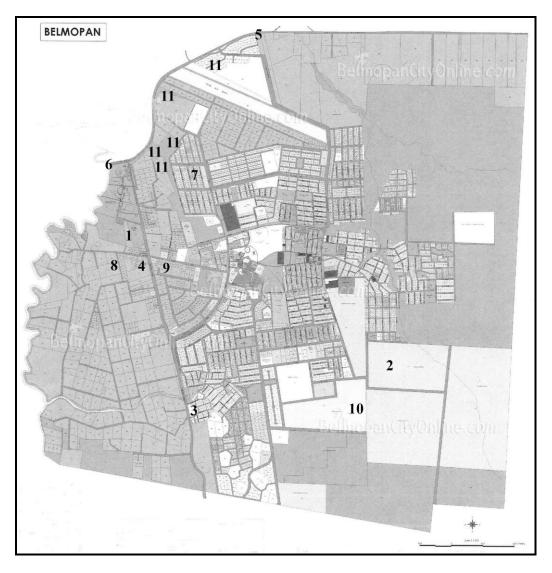
DISTRICTS (6)	Toponyms	Church,	Cemetery	Sports	Government,	Transportation:	Water:	Private:	Total
	"ceiba"	w or w/o		Field,	Education,	Roadway, Entry,	Bridge, Vado,	Home,	Ceibas
Places	"cotton tree"	plaza		Park	Business,	Bus Sta., Airport	Vega	Pasture,	
					Tourism			Spared	
STANN CREEK District	0	0	0	0	10	0	1	5	16
Hope Creek								1,2	3
Maya Beach					6				6
Maya Centre								0,1	1
Placencia					1				1
Sittee River, Possum Point							1 vega		1
Stann Creek Agri. Sta.					1,0,0,0				1
Eco-tourism/jungle lodges:					XX				xx
Hamanasi Resort					0,0,0,2				2
Hicatee Cottages								0,1	1
-									
TOLEDO District	0	1	0	0	8	14	4	16	43
Aguacate							1 bridge		1
Big Falls						1			1
Dolores						1			1
Dump						1			1
Eldridge						1			1
Forest Home						1			1
Indian Creek						1			1
Jacintoville						1 entry		0,2	3
Lubaantun ruin					0,0,0,1	1 entry			2
Mafredi, rural		1				1			2
Midway						1		0,2	3
Pueblo Viejo					0,1,0,0			0,2	3
Rice Station					2,0,0,0				2
Rio Blanco/Santa Elena							1		1
San Antonio					1,0,0,0			0,1	2
San Felipe						1		1,0	2
San Miguel					1,0,0,0			1,4	6
Santa Ana						1 entry			1
Eco-tourism/jungle lodges:					xx				XX
Belcampo Resort					0,0,0,2	1 entry			3
Cotton Tree Lodge Resort					0,0,0,0	1 entry	1 vega	0,3	5
Jungle Camp Lodge							1 vega		1

Ceiba Concentrations.

Belmopan (16 trees)

Over the decades, although hurricanes had frequently damaged coastal Belize and its capital Belize City, it was not until 1961 when Hurricane Hattie (Vermeer 1963) was so destructive that a new capital to the interior was contemplated. Belizeans were aware of recent relocations of national capitals, such as Brasilia and Islamabad, which were seemingly successful and, at least in theory, provided models. By September 1970 Belmopan had been constructed "from scratch" and was open for government business (Kearns 1973). Belize City, the former capital, remains by far the largest place (est. 70,000), but Belmopan has attracted over 20,000 people for permanent residency.

Map 3. Distribution of ceibas in Belmopan, 2018.



* Bold numbers, 1-11, matched on map of Belmopan and following list of trees and photographs.

The Cotton Trees of Belmopan, a listing

(Elevations: 160 - 270 feet above sea level)

Present Ceibas [16]

Parks/Sports Fields: 1*: FFB Stadium (1).

Education: 2*: University of Belize (2), 3*: Saint Michael Roman Catholic School (1).

Businesses, Tourism: 4*: Twin Palms Inn (1).

Roadway: 5*: Entry ceiba northeast (1).

Bridges: 6*: entry bridge from northwest, over Roaring Creek, northeast corner (1). Private Individuals: 7*: northwest subdivision Royal Palm, Erlies Street (1), 8*: Tower House (1), 9*: Hummingbird Highway/Forest Drive lot (1), 10*: southeast subdivision, end of Professor's Street (1).

Vacant urban land, spared 11*: (5).

Today, sixteen cotton trees, as the ceiba is known in Belmopan, can be seen in the city. Because the city is just a little more than 50 years old, apparently wherever ceibas appear they have probably been planted. Only two appear to be over 50 years old. As can be seen in the listing below, locations include the normal patterns of sports fields, schools, and entries, but no religious settings exist. Belmopan is quite over-bounded and in the undeveloped north sections of town five ceibas have been spared.

Figure 1. Ceiba behind Football Federation of Belize sports field.



Figure 2. University of Belize, 2018.



Figure 3. Saint Michael Roman Catholic School, 2018.



Figure 4. Young ceiba, planted 2006, Twin Palms Inn.

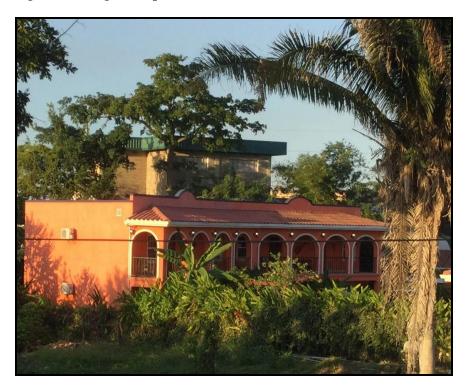


Figure 5. Northeast entry ceiba, with Sharon and Craig beneath, 2018.



Figure 6. Leafless ceiba at Roaring Creek Bridge, northwest entry, dry season, 2018.

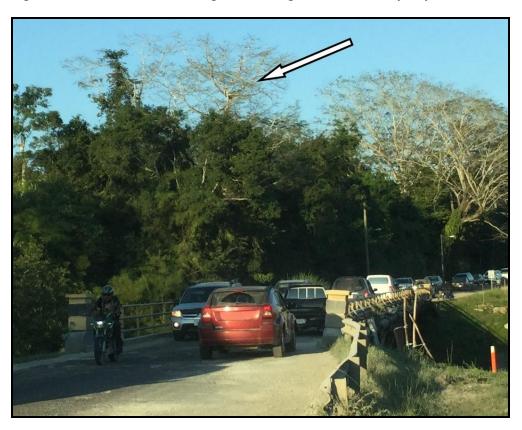


Figure 7. Northwest subdivision, Royal PalmStreet, Erlies Street.



Figure 8. Ceiba at "Tower House."



Figure 9. Hummingbird Highway/Forest Drive lot.



Figure 10. Southeast subdivision, south end of Professor's Street.



Figure 11. One of five ceibas spared in northwest undeveloped port of Belmopan, 2018.

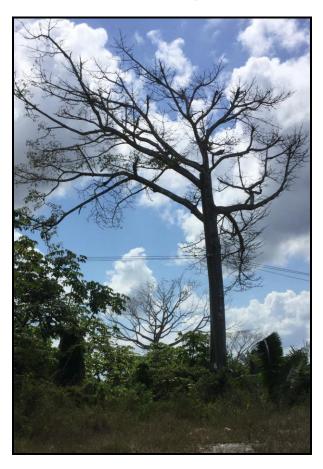


Table 2. Ceibas in Central American capitals, as of June, 2021.

Capitals	Ceiba	s Church/	Sports/	Govt./Mil.,	Transportation:	Water:	Private spared:
	Num.	Cemetery	Parks	Educ., Bus.	roads, entry,	bridge,vado,	home/farm
				Tourism	traffic circle,	dock, vega	
					bus sta., airport		
Tegucigalpa	434	8/14	2/24	260/37/12/1	15/4/0/3/3	4.0.0.18	29/0
San Salvado	r 174	6/46	9/52	14/9/11/3	7/2/8/1/0*/1	0/0/0/2	3/0
Managua	144	14/11	2/5	1/27/2/0	62/1/2/0/1/0	0/0/0/1	15/0
Guatemala	63	3/0	1/28	5/10/3/0	3/0/3/1/3/1	0	2/0
San Jose	41	3/4	3/12	4/6/3/0	0/0/0/0/2/0	0/0/0/3	1/0
Belmopan	16	0/0	1/0	0/3/0/1	0/1/0/0/0*/0	1/0/0/0	4/5
Panama	15	0/0	0/6	8/1/0/0	0	0	0
<u>Totals</u>	887	34/75	18/127	292/93/31/5	87/8/13/5/9/2	5/0/0/24	54/5

^{*}Major airports for San Salvador and Belmopan are not at capitals. Comalapa has seven ceibas; Belize City has five.

The Ceibas of Orange Walk, a listing

(Elevations: 160 - 270 feet above sea level)

Present Ceibas [24]

Parks/Sports Fields: 3/3: Nature Park (3), west of stadium (3)

Education: 5: Orange Walk Tech High School (3), Louisiana Government School (1), Muffler College (1).

Businesses 5: Belize Sugar Industries (5),

Roadway 3: Entry ceibas, southwest (3).

Private Homes: 5: Trial Farm (3), northwest (2),

Figures 12, 13. Trial Farm Nature Park (3 very old, large trees).





Figure 14. Ceiba in front of Muffler College, San Andres Street, Orange Walk, 2018.

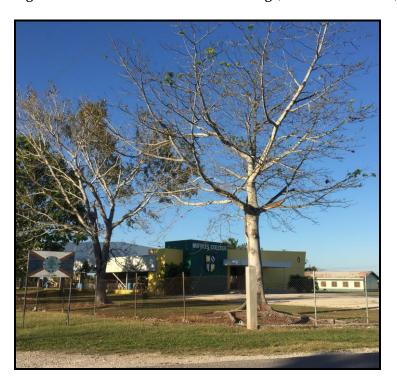


Figure 15. Entry ceiba, southwest Orange Walk, 2018.



Figure 16. Home of William Castillo, Trial Farm (3).



The Cotton Trees of Spanish Lookout, a listing

(Elevations: 160 - 270 feet above sea level)

Present Ceibas [23]

Church (1): Schontal Church

Education: 1*: school

Businesses 4*: Twin Palms Inn (1). Market

Roadway ceibas 4*:

Private Individuals (homes) 3:

Pastureland ceibas 9:

Figure 17. Shontal church, Spanish Lookout, ceiba just north of the sanctuary, 2018.



Figure 18. Cotton Hill School, north Spanish Lookout.



Figures 19, 20. Ceibas at dairy and the old market.





Figure 21. Two roadway ceibas planted in front of home and auto air conditioning repair shop, Bee Lane.

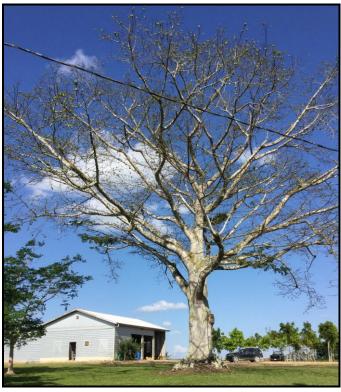


Figure 22. Ceiba along Center Road, facing south, 2018.



Figures 23, 24. Farmstead ceiba, east off Bee Land, between routes 30 and 40, air photo and on-site visit, 2018.





Figures 25, 26. Pasture land ceibas spared at Spanish Lookout, 2018.





Figure 27, 28, 29. Ceibas in open lots in Spanish Lookout.







The Cotton Trees of the Central Farms area, Cayo, a listing

(Elevations: 170 - 220 feet above sea level)

Present Ceibas [21]

Government: 3, grounds of research center

Education: 2, Galen University

Businesses 2: Running W. Brand Meat company

Private Homes: 2

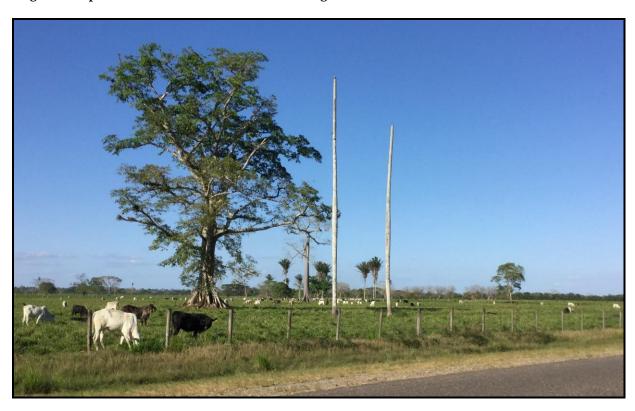
Private Farmsteads/Pastureland, spared 12:

Figures 30, 31. Ceibas at Central Farms: entrance and at Norland Farms, west, 2 trees, 2018.





Figure 32. Spared ceibas near Central Farms, facing to northeast, 2018.



Figures 33, 34. Spared ceibas in pasture, Baking Pot; in bean field, Billy White (Cayo), 2018.



*** *** ***

Modern Cultural Settings of the Ceiba.

Spared Ceibas: at Homes, Farmsteads, Pasturelands.

It seems that an unusually large proportion of the visible ceibas in Belize was propagated naturally and was saved by man. In other words, the trees were spared. By sparing a ceiba on purpose, it becomes part of the cultural landscape. Obviously, the trees are deemed of value. Perhaps they are ornamentally pleasing around dwellings and in many other settings provide shade. Informants have also said that the trees are often too large and too costly to remove. In any case, about one-third (32 percent) of the Belizean ceiba population is composed of the trees that seem to have been spared.

Below are examples from over the country.

Figure 35. Ceiba spared from cane field, near Caledonia, Corozal, 2018.



Figure 36. Large ceiba spared in cane field, at homestead, Louisville, Corozal, 2018.



Figure 37. Ceiba spared from bean field, at farmstead, Louisville, Corozal, 2018.



In a partial survey of the Mennonite settlement of Shipyard (Orange Walk) in camp 1, along Schoendorf Road, south of Guinea Grass, we saw seven ceibas planted around four homesteads. Figures 38, 39, 40.







Figure 41. Clearing land and sparing three ceibas, north of Jacintoville, Toledo, 2018.



Figure 42. A pasture ceiba, Silver Creek Road, Toledo, 2018.



Figure 43. Spared ceiba, Deep South Farm, Stann Creek, 2018.



Figure 44. Big Falls logging/sawmill area, Stann Creek, spared ceibas, 1983.



Eco-Tourism Ceibas: The Jungle Lodge/Resort Sites.

Perhaps the most distinctive aspect of the cultural complex of ceibas in Belize is the number of tourism-oriented facilities that emphasize the tree. Like Costa Rica, especially since 1981, Belize has systematically developed its "protected areas" as an instrument of promoting a lucrative international tourism industry and preserving its natural environment. Within the boundaries of some 60 plus "national" parks, including nature reserves, wildlife reserves, forest reserves, and archeological reserves, the government has also allowed construction of so-called "eco-"or "jungle" lodges, often of "resort" quality.

While the number of lodges is dynamic, subject to frequent opening and closings, perhaps 60-70 still operate, with settings at varying degrees of "jungleness." Many may be found along the Macal, Belize, and Sibun rivers. Most of them proudly display a ceiba and enjoy discussing the ancient connection of the "sacred tree of the Maya" with their guests. Of course, the impressive size of an adult ceiba is wonderful landscape feature.

An incomplete e-mail survey of the lodges in March and April 2018 confirmed that many of the facilities do have ceibas on their grounds. Some places obviously constructed their buildings to be oriented to existing ceibas.

Because many of the lodges are located in the mature forests, one might assume that the ceibas were natural. However, at Chaa Creek Resort the developer/owner planted "about 20 ceibas" over his forty years on the property (personal communication, April 7, 2022).

Table 3. List of jungle/eco-lodge tourism places with prominent ceibas:

Black Rock Lodge, Cayo District

Blancaneaux Lodge, Cayo District

Chaa Creek (The Lodge at . . .), Cayo District

Chan Chich Lodge, Orange Walk District

Copal Tree Lodge at Belcampo (Wilson Road, Forest Home, Toledo District)

Cotton Tree Lodge, San Felipe, Toledo

Cotton Tree Lodge, Belmopan, Cayo

Dream Valley Resort, Cayo District

DuPlooy Jungle Lodge, Cavo

Hamanasi Resort, Stann Creek District

Lamanai Outpost Lodge, Orange Walk District

Lower Dover Jungle Lodge, Unitedville, Cayo

Macaw Bank Jungle Lodge, Cristo Rey, Cayo

Sleeping Giant Rainforest, Cayo

Table Rock Lodge, Cayo District

Yaxche Jungle Lodge, Hummingbird Highway, Cayo

A few of the most impressive resorts were sited because of large ceibas. Cotton Tree Lodge, Belcampo Resort, and Lower Dover are among the most obvious examples.

Cotton Tree Lodge Resort (Toledo)

This resort is clearly located because of the giant tree on the property. Aside from the main tree, four ceibas can be seen on the property: three spared trees are in fields to the west of the resort and another is aside the Mojo river across from the resort.

Figures 45, 46. Signs lead the way to the lodge: highway and entry road to resort, 2018.





Figure 47. The namesake colossal tree at Cotton Tree Lodge, with climbers' lines, 2018.



Figure 48. The tree dominates entire landscape of resort. Ornamental garden in foreground, 2018.



Figure 49. Ceiba across Moho River on resort property, 2018.

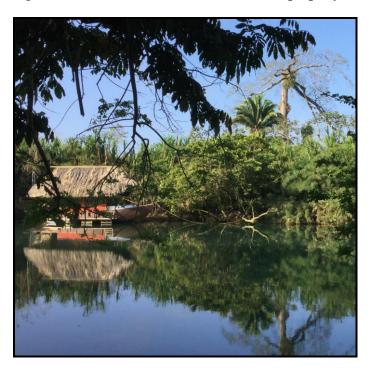


Figure 50. Guest cottages at Cotton Tree Lodge, 2018.



Belcampo Resort, Copal Tree Lodge (Toledo)

Figure 51. Main structure, night view, with lit entry ceiba.



Figure 52. Sharon and Craig beneath the principal ceiba at entrance to Belcampo, 2018.



Lower Dover Lodge

Figures 53, 54. Ceiba at entrance to resort at Lower Dover Lodge, Cayo.



Ceiba Beach Resort and Residences, Placencia (Stann Creek)

The most elaborate modern exploitation of the ceiba for the development of tourism is in progress as Ceiba Beach Resort and Residences at Maya Beach, Placencia. Developers have planted five ceibas on the property and plan more as they sell lots and build their infrastructure. Previous to this new development, the sole ceiba on the peninsula was planted at a condo at Maya Beach. Nearby at Hamanasi Resort, Hopkins, Stann Creek District, are two more, planted in 2016-17 (personal communication March 26, 2018).

Figure 55. Sole older Ceiba at Placencia: planted at condo complex, Maya Beach, 2018.



Figure 56. Brochure for new development, 2018.

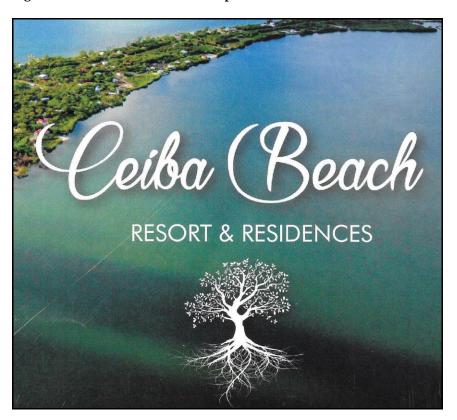


Figure 57. Entry sign to new development, with young green ceiba across road, 2018.

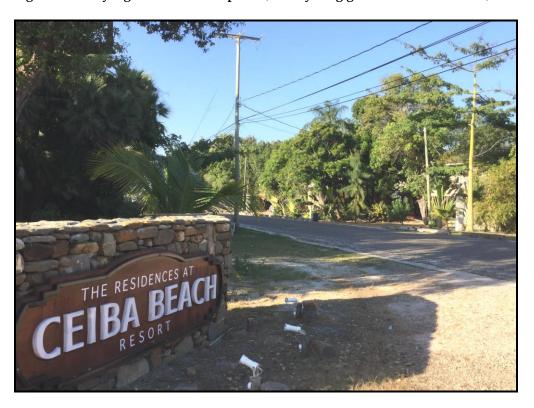




Figure 58. Young ceiba (light green) partially hiding larger, older tree (dark green), 2018.

Transportation Ceibas.

As is common elsewhere in Central America, ceibas have been planted or spared in numerous settings related to transportation. The trees are frequently seen roadside, at entrances and intersections, and at hubs (airports, bus stations). As a category in the cultural complex of ceibas, transportation ranks third in Belize, accounting for 53 trees, or one of every six ceibas.

The Roadside Ceibas.

Figure 59. Western Highway near Georgeville, 2018.



Figure 60. Humingbird Highway: ceiba with oropendula nests, south of Belmopan, east roadside, 2018.



Figures 61, 62. Curve ceibas on Hummingbird Highway near ///



Figure 63. Young curve ceiba on Southern Highway near Big Falls, Toledo District, 2018.



Figure 64. Southern Highway north of Jacintoville, Toledo District, 2018.



Figure 65. Roadside ceiba south of San Miguel, Toledo District, 2018.



Entry Ceibas

Figure 66. Ceiba at intersection, Santa Ana, Toledo District, 2018.



Figure 67. Entry ceiba east of San Ignacio, Cayo, at intersection, 2018.



Figure 68. Entry ceiba to private estate just east of Billy White, Cayo, 2018.



Figure 69. Entry ceiba, at welcome sign, Bullet Tree Falls Village, Cayo District, 2019. (Credit: Tiff White)



Airports/Bus Station

Figure 70. Bus station ceiba, San Ignacio, 2018.



Figure 71. One of five ceibas just east of Belize airport, 2018.



Ceibas at Government and Business Sites.

In Belize, ceibas do not have a special place in official government circles. This is quite unlike in neighboring Guatemala, where the tree has recognition as the "National Tree" and therefore receives much attention. However, on occasion, cotton trees are planted on government property in Belize.

Figures 72, 73. Three ceibas recently planted at hurricane shelter, Yo Creek, Orange Walk, 2018.



Figure 74. Ceiba at edge of yard of health center, San Antonio, Toledo District, 2018.



Figure 75. Two ceibas at the Belize National Zoo, La Democracia, Belize District, 2018.

The smaller of two ceibas at the zoo was planted in 1991, shown at right. The larger tree is off trail.

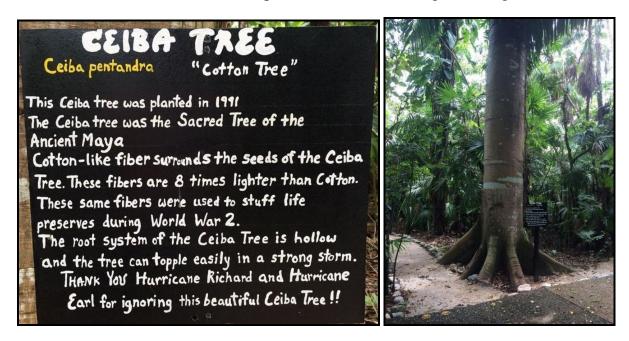


Figure 76. Sharon at zoo entrance, with larger ceiba in background, 2018.



Figure 77. Ceiba recently planted behind the Town Hall (cabildo), San Ignacio, Cayo, 2018.



Figures 78, 79. Ceibas at government Rice Station, near office; in garden, Toledo District, 2018.



Figures 80, 81. Ceibas at Agricultural Station, Stann Creek Valley, 2018.



Figure 82. Ceiba at Government Resource Center, San Miguel, Toledo District, 2018.



Several businesses also have names using a ceiba term. Examples from the jungle lodges include Yaxche Jungle Camp and Cotton Tree Lodge (2, Cayo and Toledo). Other businesses include Yaxche Belize Adventures (San Ignacio), Yaxche Sports Bar and Grill (San Ignacio), Cotton Tree Chocolate Factory (Punta Gorda), Ceiba Realty (San Ignacio), Ceiba Farm (Chiquibal Road south, Cayo), La Ceiba Restaurant (Ka'ana Resort, San Ignacio), and Cotton Tree Agro Produce (Belize City).

A few of these have ceibas planted on their grounds.

Figure 83. One of many places producing chocolate in Belize, at Punta Gorda, 2018.



Figure 84. Auto repair shop and junk yard at Carolina/Xaibe cutoff, Corozal District, 2018.



Figure 85. Bar on the river, north San Ignacio, 2018.



Figure 86. Storage facility on highway, Teakettle, Cayo District, 2018.



*** *** ***

Ceibas in Parks and Sports Fields.

Few ceibas have been planted around the parks and sports fields of Belize. As a category in the cultural complex of ceibas, parks and sports fields ranks low in Belize, accounting for about // percent of //. Nature park in Orange Walk has the nicest cluster of large ceibas (see figure 1).

Figure 87. Three ceibas at the racetrack in Santa Elena, Cayo, 2018.



Figure 88. The park in Santa Elena centro, Cayo, 2018.



Figures 89. 90. Soccer field ceibas: at Pueblo Viejo, Toledo District; St. Xavier School, Esperanza, Cayo District, 2018.





Figure 91. Soccer field ceiba, Orange Walk, 2018.



Water-related Ceibas: river banks, bridges, ferries, fords.

It is common to see ceibas on the banks of the larger rivers that flow across Belize into the Caribbean. Benque Ceiba is so named because of a large ceiba that marked a relict collection site or "bank" (benque in Spanish) for mahogany logs. (For a study of toponyms associated with mahogany logging, see Revels 2008.) Other water-related ceiba locations seen in Belize are a few bridges, one ferry, and a ford between Hopkins and Commerce Bight.

Figure 92. Ceiba near Benque Ceiba, on upper Belize River, early morning, August 1979.

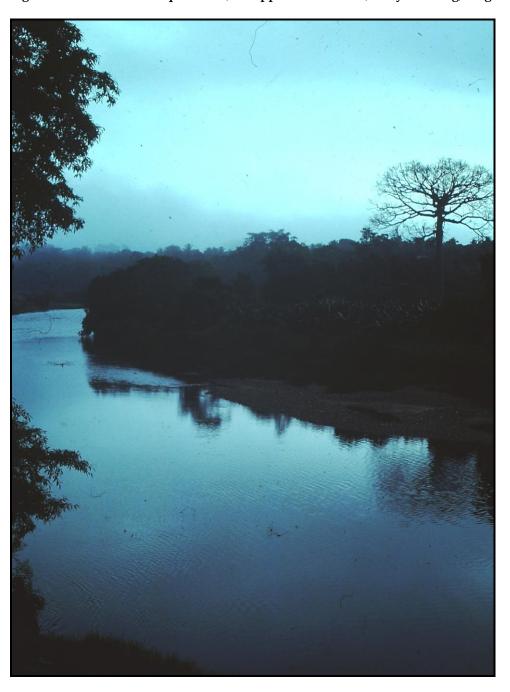


Figure 93. Ceiba along the Río Moho, south of Cotton Tree Lodge, Toledo District, 2018.



Figure 94. Sittee River near Possum Point.



Ceibas at bridges, ferries, fords.

Figure 95. Three young ceibas planted on approach to San Estevan ferry, Orange Walk, 2018.



Figures 96, 97. Toledo bridge ceibas: near Santa Elena, 2018; Aguacate (credit: Derek Smith, 2019).



The Sacred Ceibas: at churches and cemeteries.

The traditional Spanish American plaza-church settlement pattern found elsewhere in Central America did not develop in Belize, which had a British colonial past. Belizeans have not planted many ceibas in sacred settings. We found only four church ceibas: at Esperanza (Cayo), Carolina (Orange Walk), rural Mafredi (Toledo), and Spanish Lookout (see figure 17.). Two more ceibas are on the grounds of the Benedictine Monastery in Santa Familia (Cayo). Of the four cemeteries, two are in Hispanicized Cayo, and two are private, by mestizos in the north: at Louisville (Corozal) and Carmelita (Orange Walk).

Figure 98. Wesleyan Holiness church with ceiba at rural Mafredi (Toledo), 2018. Figure 99. Ceiba on church grounds at Santa Elena/Esperanza, east (Cayo), 2018.





Figure 100. Ceiba across road from church, Carolina (Orange Walk), 2018.



Figure 101. Private cemetery near ceiba planted by local resident Eduardo Correa "many years ago," Louisville (Corozal), 2018.



Figure 102. Eiley/Nuñuz farmstead cemetery with recently planted ceiba, south Carmelita (Orange Walk), west off the Northern Highway, 2018.



Ceibas in Ethnic Context.

Ceibas in the Maya Ruins – five of the most prominent ruins in Belize: Altun Ha, Caracol, Lamanai, Lubaantun, and Xunantunich, all have ceibas on their grounds. Caracol is somewhat famous for its twins ceibas. The antiquity of the ceiba in Maya lands, as well as its importance in the ancient Maya culture, can be seen in the ceiba-inspired spiked incensor recovered at Baking Pot ruin (Cayo). There are many other examples of the trunk spikes Maya ceramics (see Zidar and Elisens 2009).

Figure 103: Author's family (son Chad, Parissa, Lila, Liam) at the well-known twin ceibas of Caracol ruin, 2022. (Photograph courtesy Katie Dahlquist, Minneapolis)



Figure 104. Incensor with ceiba trunk "spikes" from Baking Pot ruin, near San Ignacio.



With its great ethnic diversity, in modern Belize we might expect to see wide variations in the cultural settings of the ceiba. The continuing Hispanicization of the country will undoubtedly alter the cultural settings of the ceibas over time.

Table 4. Population change among ethnic groups in Belize, 1980-2010.

Group	2010	2000	1991	1980	
	%	%	%	%	
Mestizo	52.9	48.7	43.6	33.1	
Creole	25.9	24.9	29.8	39.7	
Maya	11.3	10.6	11.1	9.5	
Ketchi		5.3	4.3		
Mopan		3.9	3.7		
Yucatec		1.4	3.1		
Garífuna	6.1	6.1	6.6	7.6	
East Indian 3.9		3.0	3.5	2.1	
Mennonit	e 3.6	3.6	3.1	3.3	

Mestizos ("ceiba")

The tree is seen only occasionally in areas settled by mestizo populations. The only cemetery example is in Louisville where Eduard Correa was buried near a ceiba that he planted some 50 years ago. This seems to be an individual preference, not deriving from the local culture. See figure 101.

English Creoles ("cotton tree")

Formerly the largest population component of Belize, the English-speaking Creoles, call the tree "cotton tree," as do many of their Caribbean island neighbors. Some of the "old heads" from that community still retain traditional notions/folklore/stories.

The village of Cotton Tree, along the Western Highway east of Belmopan, no longer has a tree in the village. Two spared ceibas can be seen just south of the settlement. Bullet Tree Falls village has an entry cotton tree.

Maya

In the beautiful *Maya Atlas* (TMCC 1997) produced in southern Belize by local indigenous people, we can see indications that *Ceiba pentandra* does not retain its importance as the most important Maya tree. As portrayed in the atlas, modern life of the southern Belizean Maya has no consideration of the ceiba. The tree is NEVER mentioned, in spite of several references to the four colored directions and the green center (iv, 36-8). Instead, the copal tree, source of incense

resin, is proclaimed to be "The sacred tree of the Maya . . . because we extract the resin called *pom* to use in the rituals." (p. 41)

Maya Kecchi ("in.up")

Apparently, the largest concentration of *in.up* in Keckchi in Belize is at San Miguel, where five trees can be seen in the village or just outside at holding pens and along the road. In the southern Keckchi villages, Santa Ana has a prominent intersection ceiba; San Felipe has another younger one, plus one in a southern Barrio. A few ceibas can be seen spared in rural areas, but they are not frequent.

The recently formed Golden Stream Corridor Reserve, some 15,000 acres, was placed in the Ya'axché Conservation Trust (Bowen-Jones and Entwistle 2002). Irony enters because the indigenous group living nearest the reserve is the Kecchi Maya, who use *in.up*, not *yax.che*, as their term for *Ceiba p*.

Figures 105, 106. Signage along the Southern Highway, Golden Stream Preserve, 2018.



Maya Mopan ("ya.ax.che, yas.tse")

As fairly recent residents into Belize from Guatemala (Davidson 1987), the Mopán seem less and less involved with the *yax.ché*. Steinberg's (1999: 73, 149) study from the late 1990s mentions only the rare use of ceiba for house posts and its presence as a domesticated tree in two of twelve kitchen gardens. Religious interaction with the tree was not mentioned by any informant.

In earlier days, in San Antonio, the largest Mopan settlement, Thompson (1930: 97) found villagers using ceiba "cotton" for mending clothing. In the very few villages on navigable streams canoes were fashioned from ceibas.

Today, the sole ceiba in Pueblo Viejo, the oldest of the Mopán settlements, shades the soccer field just east of the school. (Fig. 89) The large, old tree in the depression in the western section of town, beloved by all residents, fell in 2017. Villagers say that it will not be replaced . . . they are "not so interested in continuing old traditions." The only other large ceiba nearby is at the bridge over río Blanco at Santa Elena.

Maya Yucateco ("yax.che")

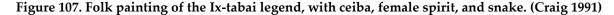
In the northern sector of Belize where live descendents of Yucatecans, although heavily acculturated, old traditions are greatest. David N. Ruiz' *Under the yax'ché tree: on legends, tales, and apparitions in western Belize* (2010) speaks to the lingering traditions from the north.

The legend of the Ix-Tabai is still recalled among the "old heads." Tabai is a "being," the male evil spirit, who lives in ceiba trees. In Maya lore his female equivalent is Ix-tabai. Tabai assumes a female appearance when she entices a male, usually drunk, into the forest where the victim is killed and his soul taken. The relationship among ceibas, Xtabay, and snakes in Belize is revealed in folklore from Orange Walk in 1978 (Hagerty and Parham 2004: 24-25).

Pacheco Cruz (1947: 117) notes, from nearby Yucatán, that "X-Tabay," the female imposter, can be observed on nights of the full moon within the shade of some large "ceibo."

Another tie to their Yucatecan cousins can be seen among the Maya residents of San José Succotz, Cayo district, on the last day of their annual saint's fiesta. Eric Thompson (1930: 111-12; also see Blaffer 1972: 51) reported that during his early field days in western Belize (1927) he saw the villagers bring a ceiba from the bush, place a pisote (*chic*) atop, plant it in the center of town, and conclude with a dance around it. Robert Redfield (1936:231) elaborates on the story in "The coati and the ceiba": ". . . all of the girls go into the forest to search for a young ceiba. The tree is chosen by the master of ceremonies, the chic (pisote or coati). When the tree has been chosen, it is cut down, and the chic is seated on top. The tree is then carried back to the plaza by

men with the chic aloft. On arrival in the plaza it is placed in a hole in the round ready to receive it, and left standing upright. The rest of the evening is spent in dancing alongside, but not around, the tree." Redfield also noted similar ritual planting of ceibas in other Maya villages (Redfield 1941: 96, 275, 198).





When Thomas Gann (1918) conducted his survey early in the century among the Maya of southern Yucatan and northern British Honduras his only mention of the ceiba was that "durable canoes are of cedar, lighter ones are of *yaxche* (wild cotton)" p. 28).

Garífuna ("gu.ma.ga, ku.ma.ga")

During over 50 years of visits among the Garífuna communities of Belize, I do not remember ever seeing a ceiba. I recall seeing only one ceiba within a Garífuna settlement – at Cristales, west of Trujillo (Davidson 2021: 179). It is said that another was once in the cemetery in Livingston, Guatemala (K. Anderson 2003: 30). The tree in Livingston was said to be inhabited by a large snake and that the tree had "great powers." While the sandy seaside environment that dominates traditional Garífuna settlements is not ideal for ceiba growth, their absence is more likely related to a Garífuna tradition of spirits (*duendu* and *pengaliba*) that live in ceibas.

Coelho (1995: 154) heard from Garífuna in Trujillo that the spirits come out at noon for a while and again at midnight.

On the trail used by Garífuna that connects Hopkins and Silk Grass, near Fowl Guts Creek, a ceiba planted about 1960 marks a vado. Recently, at the new Hamanasi resort in Hopkins two ceibas were planted "to enhance the tourist experience." (personal communication: March 26, 2018)

East Indians ("se.mal")

Remnants of the population descended from indentured servants from India who made their way to Belize from Jamaica after 1861 are now clustered in areas of sugar production south of Corozal Town in the north and north of Punta Gorda in the south of the country (Davidson 1984: 27; 1987: 11). Ceibas are prominent as ornamentals in their Asian homeland and play important roles in folk traditions and medicine (Jain *et al* 2009). Perhaps cultural memories have been retained over the 150 years of the diaspora. Of the six places that have over 100 "Hindu" residents (Calcutta and Ranchito, of Corozal District, and Eldridge, Forest Home, Jacintoville and Mafredi, in Toledo District) all have at least one ceiba. Most are roadside and intersections, or spared on the periphery of villages. .

Mennonites ("baumwollenbaum, kapokbaum, ceiba")

Perhaps 10,000 members of this German-speaking religious group, originally from central Europe, but passing through Canada and Mexico over many years, entered Belize between 1958 and 1962 (Davidson 1984: 26; 1987; Sawatzky 1971: 331-71; Cornebise 1990). They have established large, successful agricultural settlements in Spanish Lookout (Cayo District) and Shipyard and Blue Creek (Orange Walk District). Two small outliers are at Richmond Hill (Orange Walk) and Santa Elena (Cayo). Especially in Spanish Lookout, where the residents are more modernized than their northern brethren, ceibas have been spared and serve as attractors for schools, churches, individual farmsteads, and community centers. Some few have been planted, such as the three near the market in Spanish Lookout. Especially in the southern sector of Spanish Lookout large pastures are sprinkled with spared ceibas. See figures 25, 26.

Concluding Remarks

While there are indications that, in Belize, ceibas are of less interest today than in the past, new plantings are occurring. Perhaps ten percent of our observed trees were planted during the last decade. However, young trees were seen in relatively few locations: for example, at Yo Creek, Orange Walk District, where we found saplings along the main road from Orange Walk in front of the Commuity Center/Hurricane Shelter and along the south side of the southernmost street

that runs east from the main road headed south towards San Lazaro and at Maya Beach Resort, Placencia, Stann Creek District. As of December 2017, San Ignacio-Santa Elena has a new town hall. During the renovation of the property an older ceiba that was lost has been substituted by a sapling that was planted **behind** the town hall.

There is no doubt that the quest for advancing international tourism plays a significant role in caring for older ceibas in Belize. For example, the Belize Zoo, located about 30 miles west of Belize City on the Western Highway near La Democracia, planted two ceibas during the last three decades and the Belize Botanic Gardens south of San Ignacio, Cayo, has several systematically spared ceibas on its grounds. Most obvious, however, is the coincidence of ceibas as a prominent landscape feature at the so-called "eco-jungle" lodges/resorts throughout the country.

The distribution of ceibas in Belize is obvious evidence in the landscape that the country still remains distinct in the constellation of Central American states. Only nine places carry the name of the tree. Compared to the four core states of "Central American" heritage (Guatemala, El Salvador, Honduras, Nicaragua), Belize exhibits little of the "sacred" nature of the tree that the MesoAmerican cultures still embrace. Ceibas near churches and cemeteries are rare, and when present, may be more a coincidence than on purpose. Further, the number of "spared" ceibas in Belize is very high for Central America. Perhaps one-half of the ceibas recorded in this report were propagated naturally. Most of these are spared around private home- and farmsteads and pastures but significant numbers can now be seen on the grounds of the so-called "jungle" lodges.

But in the end, most Belizean informants expressed their belief that with the death of old ceibas they will not be replaced: "our traditions are dying out, less plantings in the future."

Table 5. Comparing ceiba locations, numbers and percentages, by categories: Belize and the four Central American States of Central America, January 2022.

Area	Church/ Plaza	Cemeter		Govt., Bus./ d Tourism	•	Water related	Private Spared	Total Trees
Belize	6(2%)	4(1.3%)	24(7.5%)	116(36.4%)	53(16.6%)	14(4.4%)	102(32%)	319
Cent.Amer Core	358(8%)	257(5.8)	347(7.8%)	787(17.7%)	2035(45.6%	307(6.9%)	367(8.2%)	4.458

*** *** ***

Acknowledgements.

Aside from Sharon and Craig, field companions in Belize have included Jeff Murray and Peter Herlihy. Appreciation is hereby expressed for the intellectual contributions of Kit Anderson, photographs by Derek Smith of Carlton (Canada) Geography, son Chad Davidson, niece Tiffany White, and friend Katie Dahlquist of Minneapolis, and to Joe Palacio, PhD, of Barranco, Belize, for his insights over the years in "all things Belizean . . . mon."

AID Belize sponsored my field work in August 1983 for the Country Environmental Profile.

Bibliography.

Anderson, A. H.

1958 Brief sketch of British Honduras. Revised edition, since 1939. Printing Department, British Honduras.

Anderson, Kit

2003 Nature, Culture, & Big Old Trees. Live oaks and ceibas in the landscapes of Louisiana and Guatemala. Austin: University of Texas Press.

Blaffer, Sarah C.

1972 The Black-Man of Zinacantan: A Central American Legend. Austin: University of Texas Press.

Bowen-Jones, E. and A. Entwistle

2002 "Identifying appropriate flagship species: the importance of culture and local contexts," *ORYX* (London) 36 (pt.2): 189-195).

Bridgewater, Samuel

2012 *A Natural History of Belize. Inside the Maya Forest.* Austin: University of Texas Press.

Coelho, Ruy

1995 "The Black Caribs of Honduras, a study in acculturation," PhD dissertation in Anthropology, Evanston, Illinois: Northwestern University.

Cook, James

1769 Remarks on a passage from the river Balise, in the bay of Honduras, to Merida; the capital of the province of Jucatan, in the Spanish West Indies. London: C. Parker.

Cornebise, Michael

1990 "Geographical Aspects of Social and Economic Changes Among the Belizean Mennonites: Twenty Years after Sawatsky," M. A. Thesis in Geography, Louisiana State University.

Craig, Meg

1991 Characters and caricatures in Belizean folklore. Belize: UNESCO Commission.

Davidson, William V.

- "Cultural history, demography, settlement," in *Belize country environmental profile, a field study, [USAID]*, pp. 26-37. San José, Costa Rica: Trejos Hnos.
- 1987 "The Amerindians of Belize, an overview," América Indígena XLVII (1): 9-22.
- 2021 "The Ceiba Trees of Honduras, a Cultural Geography," 200 pages. See PDF at williamydavidson.com.

Fowler, Henry

1879 A narrative of a journey across the unexplored portion of British Honduras, with a short sketch of the history and resources. Belize: Government Press.

Gann, Thomas W. F.

- 1918 *The Maya Indians of southern Yucatan and northern British Honduras*. Smithsonian Institution Bureau of American Ethnology, Bulletin 64. Washington, D.C.: Government Printing Office.
- 1926 Ancient cities and modern tribes: explorations and adventures in Maya lands. London.

Gibbs, Archibald Robertson

1883 *British Honduras: an historical and descriptive account of the colony from its settlement,* 1670. London: Sampson, Low, Marston, Searle & Rivington.

Gruning, E. L.

1930 "Report on the British Museum Expedition to British Honduras, 1930," *Journal, Royal Anthropological Institute* 60: 477-83.

Hagerty, Timothy and Mary Gomez Parham, editors

2004 *If di pin neva ben. Folktales and legends of Belize*. Benque Viejo del Carmen: Cubola Productions.

Hartshorn, Gary et al

"Cultural-historical Geography of Belize," in *Belize Country Environmental Profile: A Field Study,* pp. l, 26-37, 96. San José Costa Rica: Trejos Hnos. (USAID).

Henderson, Capt. George

An account of the British settlement of Honduras . . . Sketches of the manners and customs of the Mosqueto Indians. London: C. and R. Baldwin.

Jain, Vartika, S. K. Verma, and S. S. Katewa

2009 "Myths, traditions and fate of multipurpose *Bombax ceiba* L. – an appraisal," *Indian Journal of Traditional Knowledge* 8 (4) October: 638-44.

Joyce, Thomas A.

1929 "Report on the British Museum Expedition to British Honduras, 1929," *Journal, Royal Anthropological Institute* 59: 439-59.

Joyce, Thomas A., J. C. Clark, and J. E. S. Thompson

1927 "Report on the British Museum Expedition to British Honduras, 1927," *Journal, Royal Anthropological Institute* 57: 295-323.

Joyce, Thomas A., Thomas Gann, E. L. Gruning, and R. C. Long

1928 "Report on the British Museum Expedition to British Honduras, 1928," *Journal, Royal Anthropological Institute* 58: 323-50.

Kearns, Kevin C.

1973 "Belmopan: Perspectives on a new capital," *Geographical Review* 63 (2): 147-69.

Morris, Daniel

1883 *The colony of British Honduras, its resources and prospects, with particular reference to its indigenous plants and economic productions.* London: Edward Stanford.

Pacheco Cruz, Santiago

1947 *Usos, costumbres, religión i supersticiones de los Mayas*. Mérida, Yucatán: Enrique G. Triay.

Reclus, Elisée

- 1890? *A universal geography: The Earth and its inhabitants with numerous illustrations and maps. Vol. XVII: Mexico, Central America, West Indies.* Edited by A. H. Keane. London: J. S. Virtue & Co. Limited.
- 1891 The Earth and its inhabitants. North America, vol. II: Mexico, Central America, West Indies. Edited by A. H. Keane. New York: D. Appleton and Company.

Record, Samuel J.

- 1930 "Local names of the woody plants of British Honduras," *Tropical Woods* 24: 15-28.
- "Local names of the woody plants of British Honduras: corrections and additions," *Tropical Woods* 25: 23-24.

Redfield, Robert

1936 "The coati and the ceiba," Maya Research 3: 231-43.

1941 The folk culture of Yucatan. Chicago: The University of Chicago Press.

Revels, Craig S.

"Banks and booms in the mid-day sun: place names and the Honduran mahogany trade: in *Ethno-and historical geographic studies in Latin America*, pp. 223-238. *Geoscience and Man* 40. Baton Rouge: Louisiana State University, Geoscience Publications.

Ruiz, David N.

2010 *Under the Ya'axche Tree, on legends, tales and apparitions in western Belize.* Benque Viejo del Carmen, Belize: Poustinia.

Standley, P. C. and S. J. Record

1936 *The forests and flora of British Honduras*. Publications of the Field Museum of Natural History 350(12):1-432. Chicago.

Steinberg, Michael K.

"Biological diversity and cultural survival: Mopan Maya traditional culture and environmental change in southern Belize," PhD dissertation in Geography, Louisiana State University, Baton Rouge.

Stone, Doris Z.

1932 "Some Spanish entradas, 1524-1695," *Middle American Papers*, pub. 4: 209-296. New Orleans: Tulane University.

Sawatszy, Harry Leonard

1971 They sought a country. Mennonite colonization in Mexico, with an appendix of Mennonite colonization in British Honduras. Berkeley: University of California Press.

Thompson, J. Eric S. (1898-1975)

1930 Ethnology of the Mayas of Southern and Central British Honduras. Chicago: Field Museum of Natural History.

TMCC (Toledo Maya Cultural Council)

1977 *Maya Atlas. The struggle to preserve Maya land in southern Belize.* Berkeley, California: North Atlantic Books.

Vermeer, Donald E.

"The effects of Hurricane Hattie on the cays of British Honduras," *Zeitschrift fur Geomorphologie* 7(4) December: 332-54.

Zidar, Charles and Wayne Elisens

2009 "Sacred giants" Depictions of *Bombacoideae* on Maya ceramics in Mexico, Guatemala, and Belize," *Economic Botany* 63 (1) June: 119-129.

*** *** ***

