

Distribution of *Calyptrogyne plumeriana*

Distribución de *Calyptrogyne plumeriana*

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Abstract

Based on 345 herbarium specimens and more than 25 years of field observations, the distribution of *Calyptrogyne plumeriana* is provided for the first time by provinces or departments for Cuba, Haiti, and the Dominican Republic, as well as the biogeographic distribution by sub-provinces, sectors and districts for Cuba and Hispaniola. We also provide the most recent nomenclature for the species.

Resumen

Respaldo por 345 especímenes de herbario y más de 25 años de observaciones de campo, se ofrece por primera vez la distribución de *Calyptrogyne plumeriana* por provincias o departamentos para Cuba, Haití y República Dominicana, así como la distribución biogeográfica por subprovincias, sectores y distritos para Cuba y La Española.

Introduction

Calyptrogyne plumeriana is a mostly tall, solitary, pinnate-leaved palm occurring in Cuba and Hispaniola (Haiti and the Dominican Republic). Taxonomically, *Calyptrogyne* is in the Geonomatae tribe of the Arecoideae subfamily of palms (Dransfield et al. 2008). Nine species from Mexico to Colombia and an additional three species from the Greater Antilles in the Caribbean comprise the genus. The three species from the Caribbean, of which *C. plumeriana* is one, were until recently considered to be in their own separate genus *Calyptronoma*. However, Loiseau et al. (2019) confirmed the previously hypothesized paraphyly of *Calyptronoma* and consequently advocated that it should be synonymized under *Calyptrogyne*. Serendipitously, others had already made the formal nomenclatural transfers of *Calyptronoma* to *Calyptrogyne*.

The three Caribbean species are distributed in the four islands of the Greater Antilles as follows: *Calyptrogyne occidentalis* (Sw.) M. Gómez of Jamaica, *C. plumeriana* (Mart.) Roncal of Cuba and Hispaniola, and *C. rivalis* (O. F. Cook) León of Hispaniola and Puerto Rico (Zona 1995).

The purpose of this paper is to update the geographical and biogeographical distribution of *Calyptrogyne plumeriana*.

Materials and Methods

We gleaned information about the distribution of *Calypstrogyne plumeriana* from herbarium specimens, locations cited in the literature (bibliographic references), our field observations, and personal communications with other knowledgeable colleagues.

We examined and obtained location data from 345 specimens of *Calypstrogyne plumeriana* from Cuba and Hispaniola at the following herbaria: A, AJBC, BH, BRU, CM, F, FI, FLAS, FTG, G, GH, GOET, HAC, HAJB, HMC, JBSD, K, L, LE, M, MO, NY, P, S, US, VT and YU (acronyms follow Thiers 2016). A further 139 specimens cited by Bailey (1938), Beccari (1912), León (1944), Peguero et al. (2007), Reveal and Nixon (2013), Salazar et al. (2000), Wessels Boer (1968), and Zona (1995) provided additional location data.

Literature accounts of Marie-Victorin and León (1942, 1944), Seifriz (1943), León (1944), Saakov (1970), Zona (1995), and Moya and Leiva (2000) for Cuba and Beccari (1912), Mejía et al. (1997), Peguero et al. (2007), Salazar et al. (2000), Tolentino and Peña (1998), Zanoni et al. (1990), and Zona (1995) for Hispaniola provided additional distribution information.

We have maintained field observation records for the last 26 years, from 1994 to 2019. Locations generally refer to the nearest place of habitation in instances where locations are unnamed. Rodríguez's field observation number system is in this format: *MRXX.XX*. Moya's field observation number system is in this format: *Serie Moya XXXX*.

We also obtained location information from colleagues (personal communications).

Results and Discussion

Specimens Examined

Specimens seen by the authors are marked with '!', those not seen with '[n.v.]', and those without designation were gathered from digital images.

CUBA. PROVINCE Artemisa. Municipality Bahía Honda: El Roble, 1994, *Zona 631* (FTG [n.v.], HAJB [n.v.]). Municipality **San Cristóbal:** Río Taco, s.f., *Wright 3972* (*Calypstrogyne intermedia* neotype, GH, isoneotypes, A, BRU [2 sheets], F [2 sheets], GH, HAC!, NY [5 sheets], P, S [n.v.], US [3 sheets]); Abr. 1936, *León 16531* (HAC!, BH [n.v.]); Jul. 1936, *León 16630* (HAC! [4 sheets], BH [n.v.], GH [n.v.], S [n.v.], US [2 sheets, n.v.]); Dic. 1939, *León 17542*, collected by Alain, (HAC!); Feb. 1940, *León 17591* (HAC!); Jul. 1940, *León 19297* (HAC!); Ene. 1945, *León 22459* (HAC!); Mameyal, 9 Nov. 1994, *Zona 624* (NY [2 sheets], FTG [n.v.], HAJB [n.v.]). **PROVINCIA Cienfuegos. Municipality Cumanayagua:** San Blas, 1928, *Rehder 1243*, A [n.v.]; 1929, *Bailey 12395* (BH [n.v.]); 1932, *Rowe s.n.* (A [n.v.], BH [n.v.]); San Blas, La Sierra, 4 Mar. 1929, *Jack 6973* (AJBC, A [n.v.], US [n.v.]); 16 Mar.

1929, *Jack 7084* (A [n.v.], US [n.v.]); La Sierra, 12 Jul. 1929, *Jack 7580* (A [n.v.], S [n.v.], US [n.v.]), 7 Apr. 1930, *Jack 7849* (AJBC, NY, A [n.v.], BH [n.v.], F [n.v.], S [n.v.], US [2 sheets, n.v.]); Buenos Aires, 6 Mar. 1929, *Jack 7018* (AJBC, P, A [n.v.], US [n.v.]); Sierra de San Juan, Aug. 1940, *Hodge 4506* (AJBC [2 sheets], A [n.v.]). PROVINCIA **Granma**. Municipality **Bartolomé Masó**: Loma Calá, Sierra Maestra, May 1945, *Acuña s.n.* (HAC!). PROVINCIA **Guantánamo**. Municipality **Baracoa**: Baracoa, finca Alegría, Mar. 1901, *Horne 1091* (n.v.); 1907, *Horne s.n.* (US [n.v.]); *Horne 3050* (NY [2 sheets], B [dest.], FI [n.v.], US [n.v.]); Cuchillas de Baracoa, Jun. 1940, *León 17951* ([n.v.]); Yunque de Baracoa, 1 Jul. 1991, *Verdecia s.n.* (HMC [3 sheets]). Municipality **Yateras**: Monte Verde, 1859, *Wright 1466* (BRU, F [2 sheets], FI, G [3 sheets], GH [2 sheets], GOET [4 sheets], HAC!, NY, P [2 sheets], YU, MO [n.v.], S [n.v.]); Finca Las Gracias, 5 May 1907, *Maxon 4464* (US [5 sheets, n.v.]); La Prenda, 21 Jul. 1921, *Hioram 4754* (HAC!, GH [n.v.], S LS [n.v.]); Jul. 1923, *Hioram 6711* (HAC! [2 sheets]). PROVINCIA **Holguín**. Municipality **Mayarí**: Piedra Gorda to Arroyo Seboruco, Mar. 1910, *Shafer 3654* (NY); río Piloto, Sierra de Nipe, Jul. 1914, *Ekman 2109* (S [n.v.]), 1919, *Ekman s.n.* (S [n.v.]); Cayo La Plancha, Sierra de Nipe, Jul. 1940, *León 17999* (HAC! [2 sheets], NY, GH [n.v.], US [2 sheets, n.v.]); Cayo Mujeres, Loma Mensura, 6 Apr. 1941, *León 19811* (HAC!); Río Lebisa, Sierra Cristal, 2-7 Apr. 1956, *Alain 5720* (HAC! [4 sheets], GH [n.v.]); Casimba, Sierra de Nipe, 17 Sep. 1993, *Verdecia s.n.* (HMC [3 sheets]). Municipality **Moa**: Monte Centeno, 12 Nov. 1945, *Acuña 13019* (*Calyptronoma clementis* subsp. *clementis* holotype, HAC!); Monte Grande Centeno, Aug. 1945, *León 22690* (HAC! [2 sheets]). PROVINCIA **La Habana**. Municipality **La Lisa**: Guato, 24 Ago. 1915, *León 6789* (NY). PROVINCIA **Matanzas**. Municipality **Calimete**: Hanábana, 10 Jun. 1865, *Wright s.n.* (*Calypstrogyne dulcis* lectotype, GOET, isoelectotypes: F, GH [2 sheets], GOET [3 sheets], HAC!, K [2 sheets]); NE hacienda Zarabanda, cerca Murga y Hanábana, 23 Feb. 1941, *León 19549* (HAC [4 sheets], GH [n.v.], US [2 sheets, n.v.]). PROVINCIA **Mayabeque**. Municipality **Batabanó**: hacienda Pimienta, Batabanó, 30 Aug. 1928, *León 13619* (HAC! [2 sheets], NY [2 sheets], US [2 sheets]). PROVINCIA **Pinar del Río**. Municipality **Consolación del Sur**: Herradura, 16 Aug. 1905, *Hermann 745* (HAC!, B [dest.]); Aug. 1910, *Britton 6482* (NY); 13 Sep. 1912, *Hermann 875* (HAC!, FI [n.v.], B [dest.]); Paso Real, 25 Mar. 1905, *Hermann 767* (NY); 1905, *Hermann 767A* (P, F [n.v.]); entre Paso Real y Herradura, 10 Apr. 1905, *Baker 4882* (HAC!, NY, B [dest.], F [n.v.], FI [n.v.], US [n.v.]); Consolación del Sur, 1929, *Bailey 324* (BH [n.v.]); 1947, *Dahlgren 47026* (F [n.v.]); 4 km W Consolación del Sur, Jul. 1940, *León 19379* (HAC! [2 sheets], GH [n.v.], US [2 sheets, n.v.]); arroyo 4 km to Consolación del Sur, May 1947, *Dahlgren 22823* (HAC! [2 sheets]). Municipality **La Palma**: Loma del Americano, entre San Andrés y La Palma, 1994, *Zona 630* (FGT [n.v.], HAJB [n.v.]); alrededores Arroyo Sagua, Mil Cumbres, 16 Jul. 1996, *Cedeno 1206* (US [n.v.]). Municipality **Los Palacios**: montañas de San Diego de los Baños, 12 Apr. 1900, *Palmer 529* (US [n.v.]); N riachuelo, San Diego de los Baños, Aug. 1914, *León 4379* (HAC!, NY, BH [n.v.]). Municipality **Pinar del Río**: ravines N of Pinar del Río, 24 Apr. 1903, *Shafer 317* (CM [2 sheets], HAC!, MO, NY [2 sheets], F [n.v.], GH [n.v.]); arroyo Sierra de Cabra, Mar. 1913, *Britton 9818* (NY); arroyo Punta de Palma, Jan. 1937, *León 16664* (HAC!). Municipality **San Luis**: arroyos San Luis, Mar. 1923,

Labrada s.n.1 (HAC!); arroyos y ríos San Luis, 17 Apr. 1925, *Labrada s.n.2* (HAC! [2 sheets]). Municipality **Viñales**: Viñales, 11 Dec. 1930, *Killip 13526* (US [2 sheets, n.v.]); arroyo El Guao, Viñales, Dec. 1939, *León 18740* (HAC!); río Pan de Azúcar, May 1940, *León 17900* (HAC! [2 sheets], GH [n.v.], US [3 sheets, n.v.]); ¿Jul.? 1941, *León 19538* (HAC!, GH [n.v.], US [n.v.]); cerca de Viñales, Jul. 1940, *León 19298* (HAC! [2 sheets], GH [n.v.], US [3 sheets, n.v.]). PROVINCIA **Sancti Spíritus**. Municipality **Trinidad**: Arroyo de Manaca, Herradura, 4 Mar. 1910, *Britton 5018* (NY [2 sheets], F [n.v.], US [n.v.]); Topes de Collantes (**Fig. 1**), Jul. 1938, *León 18449* ([n.v.]); Nov. 1938, *León 18574*, collected by Garteiz (*Calyptrogyne microcarpa* lectotype (HAC!; isolectotypes: GH, HAC! [2 sheets], NY, US); Jul. 1939, *León 19378* (HAC! [2 sheets]); 3 Aug. 1939, *León 19072* (HAC!); 3 Aug. 1939, *León 19041* (HAC! [2 sheets]). Municipality **Sancti Spíritus**: lomas de Banao, 23 Jul. 1918, *León 7869* (HAC!, NY). PROVINCIA **Santiago de Cuba**. Municipality **Palma Soriano**: Paso Estancia to the Pinales, Aug. 1909, *Shafer 1748* (NY [3 sheets], A [n.v.]). Municipality **Santiago de Cuba**: de La Magdalena Cañon to Sierra Maestra, Sep. 1906, *Taylor 412* (NY [2 sheets]); Loma del Gato, Hongolosongo, 11 Jul. 1921, *León 10066* (HAC!, NY); Jun. 1940, collected by Clement (*Calyptrogyne clementis* lectotype, HAC!, isolectotipos: GH, HAC!, NY, US). Municipality **Isla de la Juventud**: unknown location, 186?, *Blain 170* (F [n.v.]); Nueva Gerona, 7 May 1904, *Curtiss 485* (HAC!, M, MO, NY, P, VT, A [n.v.], B [dest.], CM [n.v.], F [n.v.], G [n.v.], GH [n.v.], L [n.v.], LE [n.v.], NO [n.v.], S [n.v.], US [2 sheets, n.v.]); montes Caballos, E Nueva Gerona, 9 May 1910, *Jennings 159* (CM); Santa Bárbara, 23 Feb. 1916, *Britton 14761* (NY [2 sheets], CM [n.v.], F [n.v.], GH [n.v.], US [n.v.]); arroyo Nueva Gerona, 23 Feb. 1939, *León 18785* (HAC!, GH [n.v.]); 6 Feb. 1940, *León 17463* (HAC!, GH [n.v.]); arroyo Finca La Ceiba, S Santa Fe, 25 Feb. 1939, *León 18891* (HAC! [2 sheets], GH [n.v.], US [3 sheets, n.v.]); arroyo San Francisco de las Piedras, 8 Feb. 1940, *León 17531* (HAC! [2 sheets], GH [n.v.], US [3 sheets, n.v.]); Arroyo del Hatillo, 11 May 1940, *León 17899* (HAC!); Carretera a La Fé Km 9, 16 Nov. 2012, *Verdecia RV12/38* (NY [6 sheets]). Unknown location, 1951, *Dahlgren s.n.* (F [n.v.]). Cultivada, Instituto La Habana, Nov. 1940, *León 19380* (HAC! [3 sheets], GH [n.v.], US [3 sheets, n.v.]).

HAITÍ. Departaments **Grand'Anse**, Rt. 214, between Jeremie and Les Cayes, Massif de la Hotte, 4 Jun. 1993, *Judd & Slean 6869* (FLAS [2 sheets]); Tombeau Cheval, 15 Nov. 1982, *Zanoni et al. 24321* (JBSD!). **Nord-Ouest**, Le Borgne, Massif du Nord, 7 Jun. 1986, *Zanoni et al. 34974* (JBSD!); **Sud**, Tiburon, Massif de la Hotte, 26 Jan. 1985, *Zanoni, Mejia & Pimentel 33242* (US [n.v.]); Road from Camp Perrin to Beaumont at Tete Morne Gefferd, Dec. 1989, *Henderson & Aubry 1179* (NY [2 sheets]).

DOMINICAN REPUBLIC. Provinces **Duarte**, Loma Quita Espuelas, Cordillera Septentrional, 15 Oct. 1986, *Mejía et al. 1848* (JBSD!); sur de Quita Espuelas, sobre Los Brasitos, Cordillera Septentrional, 14 Jul. 1993, *Zona & Salzman 478* (FLAS [4 sheets], JBSDS!); **El Seibo**, Km 15.5 South of El



1. *Calyptrogyne plumeriana*, emergent above the forest canopy, occurs at Mogote Miritiro, Topes de Collantes, Trinidad municipality, Sancti Spíritus province, Cuba. (© 2016 by Donald R. Hodel).

Valle on highway to Hato Mayor del Ray, Aug. 1981, *Zanoni, Mejía & Ramírez 16001* (NY [4 sheets], Valle on highway to Hato Mayor del Ray, Aug. 1981, *Zanoni, Mejía & Ramírez 16001* (NY [4 sheets], MO [2 sheets, n.v.]); Monte Bonito, P.N. Los Haitises, 8 Aug. 1985, *Mejía, Pimentel & García 35577* (FTG, JBSD!, US [3 sheets, n.v.]); **Hato Mayor**, Sabana de la mar, El limpio, 14 Jul. 1930, *Ekman H15685* (S [n.v.], US [2 sheets, n.v.]); Cordillera Oriental, 15 km al Norte del municipio cabecera, 23 Jul. 1978, *Liogier et al. 27738* (JBSD!); Parque Nacional Los Haitises, La Manaclita, 10 Sep. 1985, *Mejía et al. 1550* (JBSD!); **La Vega**, Loma Miranda, Cordillera Central, La Portola, 21 Feb. 2014, *Clase et al. 8447* (JBSD!); **Monte Plata**, Monte Plata, s.d., *Jiménez J.J. s.n.* (BH [n.v.]); Rio Comatillo, 8.5 km from Comatillo on road to cruce de Pilancón, 7 Sep. 1981, *Zanoni & Mejía 16410* (JBSD!, MO [n.v.]). Rio Comatillo, Bayaguana, 9 Feb. 1974, *Liogier 21256* (JBSD!). Rio Comate, Comatillo, Ab. 1978, *Liogier 27564* (JBSD!); Río Comate, cerca Sierra de Agua, NNE Bayaguana, 10 Jul. 1985, *Zanoni & Mejía 35252* (FTG, JBSD!, K [n.v.], US [4 sheets, n.v.]); **Samaná**, near Laguna, Samaná peninsula, 23 Dec. 1920, *Abbott 406* (US [n.v.]); Samaná, *Salazar 1196* (JBSD [n.v.]); and **San Cristóbal**, Loma los 7 Picos, Cordillera Septentrional, *Mejía et al. 741* (JBSD!), Loma Mariana Chica, Cordillera Septentrional, 9 Jun. 1984, *Zanoni et al. 30569* (JBSD!). **Valverde**, La Meseta, Cordillera Central, Monción, *Liogier 24763* (JBSD!).

Field Observations

Milian Rodríguez:

CUBA. **Artemisa** province. Bahía Honda municipality: Cacarajicara, 25 Mar. 2001, *MR01.05*; Jaguaní, 24 Mar. 2017, *MR17.01*. **Camagüey** province. Florida municipality: SW Las Mercedes ravine, 12 May. 2001, *MR01.06*. **Ciego de Ávila** province. Bolivia municipality: N Lomas de Cuna-gua, 7 Dec. 2008, *MR08.01*. Florencia municipality: Boquerones, 29 Jun. 2001, *MR01.07* and 5 Aug. 2015, *MR15.03*. **Cienfuegos** province. Aguada municipality: between Caimito and Zarabanda, 25 May. 1998, *MR98.01*. Cumanayagua municipality: between Buenos Aires and San Blas, 8 May. 2007, *MR07.01*. **Granma** province. Bartolomé Masó municipality: S Santo Domingo, 25 Jun. 1996, *MR96.01*. Guisa municipality: Cupaynicú, 12 Oct. 2012, *MR12.04*; between Raudal and Victorino, 1 Apr. 2017, *MR17.05*. **Guantánamo** province. Baracoa municipality: Las Calabazas, margins Toa River, 20 Nov. 2011, *MR11.04* and 6 Dec. 2016, *MR16.07*; Velete, 12 Mar. 2012, *MR12.01*; Salto Fino, 29 Mar. 2012, *MR12.03*; S Nibujón, 20 Oct. 2016, *MR16.01*; Quibiján, 26 Oct. 2016, *MR16.02*; Rio Toa, 20 Oct. 2016, *MR16.04*; Arroyo Infierno, 1 Nov. 2016, *MR16.05*; Jaguaní, 8 Apr. 2017, *MR17.21* and 26 Feb. 2018, *MR18.03*; Yunque, 25 Feb. 2018, *MR18.02*. El Salvador municipality: Achotal, 2 Dec. 2017, *MR17.26*; Bayate, 2 Dec. 2017, *MR17.27*; Yambeque, n.d. *MR17.28*. Imías municipality: Sierra del Purial, 5 Apr. 2017, *MR17.14*; E Cagüebaje, 6 Apr. 2017, *MR17.18*; Palma Clara, 6 Apr. 2017, *MR17.19*; Alto de Cotilla, 7 Apr. 2017, *MR17.20*, and 24 Feb. 2018, *MR18.01*. Maisí municipality: Velete, 12 Mar. 2012, *MR12.02*; Cantillo, 5 Apr. 2017, *MR17.15*; Yurumí

River, 5 Apr. 2017, *MR17.16*; W de Sabana, 5 Apr. 2017, *MR17.17*; Obando, 26 Feb. 2018, *MR18.04*; a Polo Viejo, 26 Feb. 2018, *MR18.05*. San Antonio del Sur municipality: El Naranjo, 17 Nov. 2011, *MR11.03*. Yateras municipality: N Palenque, 18 Oct. 2011, *MR11.01*; Bernardo, 16 Nov. 2011, *MR11.02*; Cuchillas del Toa, 27 Oct. 2016, *MR16.03*; La Tagua, 13 Dec. 2017, *MR17.29*. **Holguín** province. Mayarí municipality: Pinares de Mayarí ravines, 10 Apr. 2017, *MR17.24*. Moa municipality: boundaries with Baracoa municipality, 8 Apr. 2017, *MR17.22*. Sagua de Tánamo municipality: La Catalina, N of cliffs, 9 Apr. 2017, *MR17.23*. **Matanzas** province. Calimete municipality: Hanabana River, 14 Dec. 1995, *MR95.01*. Ciénaga de Zapata municipality: W Cayo Ramona, 23 Apr. 1994, *MR94.01*. **Matanzas** municipality: San Juan River, 6 Aug. 2002, *MR02.01*. **Pinar del Río** province. Consolación del Sur municipality: N Las Barrigonas, 12 May 2015, *MR15.02*. Guane municipality: Macho Prieto estate, 25 March 2017, *MR17.02*; N Sábalo, 25 March 2017, *MR17.03*. La Palma municipality: S Sanguily, 11 May 2015, *MR15.01*. Minas de Matahambre municipality: W Moncada, 1 Mar. 2018, *MR18.06*. **Sancti Spíritus** province. Trinidad municipality: Mogote Mi Retiro ravines, 9 Dec. 1997, *MR97.01*. Yaguajay municipality: Circuito Norte ravines, 28 Mar. 2017, *MR17.04*. **Santiago de Cuba** province. Guamá municipality: El Codillo, 15 Feb. 2013, *MR13.02*, and 1 Apr. 2017, *MR17.06*; Chivirico, 1 Apr. 2017, *MR17.07*; El Jobo, 1 Apr. 2017, *MR17.08*; La Plata, 1 Apr. 2017, *MR17.09*; La Mula River, 1 Apr. 2017, *MR17.10*; Seco River, 14 Feb. 2013, *MR13.01*, and 1 Apr. 2017, *MR17.11*. Mella municipality: W Cliff of Birán, 12 Jun. 2006, *MR06.01*. Santiago de Cuba municipality: up the Gran Piedra, 2 Apr. 2017, *MR17.12*; Baconao River, 2 Apr. 2017, *MR17.13*. Segundo Frente municipality: Maya River, 14 Feb. 2009, *MR09.01* and 15 Feb. 2013, *MR13.03*; Soledad, 26 Nov. 1998, *MR98.02*. Songo-La Maya municipality: S Ramón, 26 Nov. 1998, *MR98.03*. Tercer Frente municipality: N Matías, 12 Apr. 2012, *MR12.05*. **Villa Clara** province. Manicaragua municipality: W Herradura, 12 Jan. 2001, *MR01.01*; Cabonico River, 24 Jan. 2001, *MR01.02*, and 24 Jun. 2009, *MR09.02*; Jibacoa River, 12 Jan. 2001, *MR01.03*. Ranchuelo municipality: origin of Sagua la Grande River, 13 Jan. 2001, *MR01.04*. Santo Domingo municipality: S Manacas, 29 Jun. 1996, *MR96.02*.

Celio Moya:

CUBA. Isla de la Juventud municipality: Pinar N La Cañada, 2 Oct. 2018, *Serie Moya 1847*; gallery forest S de La Cañada, 2 Oct. 2018, *Serie Moya 1854* (**Fig. 2**). **Ciego de Ávila** province. Florencia municipality: Marroquí, 25 Jan. 2019, *Serie Moya 1920* (**Fig. 3**). **Guantánamo** province. Imías municipality: S Cagüebaje, 16 May 2016, *Serie Moya 1661*. **Sancti Spíritus** province. Trinidad municipality: Sabana de Velázquez, 20 Dec. 2016, *Serie Moya 1688*.

Locations Cited in Literature (bibliographic references)

CUBA. Granma PROVINCE. Niquero Municipality: Managuaco (Costa-Acosta et al. 2017); **Guantánamo** PROVINCE. Maisí Municipality: Cuchillas de Vista Alegre (Seifriz 1943); Baracoa Municipality:



2. *Calyptrogyne plumeriana*, growing in Isla de la Juventud, occurs in a pine forest north of La Cañada, Cuba. *Serie Moya 1854*. (© 2020 by Celio E. Moya).



3. *Calyptrogyne plumeriana*, growing around Marroquí in gallery forest, Florencia municipality, Ciego de Ávila province, Cuba. *Serie Moya 1920*, which is a new report for the province. (Photo © 2020 by Celio E. Moya).

pality: Finca La Alegría (León 1944); **Pinar del Río** PROVINCE. Viñales Municipality: San Vicente (Marie-Victorin and León 1942); **Santiago de Cuba** PROVINCE. Santiago de Cuba Municipality: Pico Mogote (Maceira et al. 2006); **Sancti Spíritus** PROVINCE. Sancti Spíritus Municipality: Tetas de Juana (Bécquer 2005); Yaguajay Municipality: Lomas de La Canoa (Falcón et al. 2015); **Villa Clara** PROVINCE. Sagua La Grande Municipality: Área protegida Mogotes de Jumagua (Castañeda 2006); **Isla de la Juventud** Municipality: arroyo Las Tunas, (Marie-Victorin and León 1944); Río del Medio (Marie-Victorin and León 1942) and Río Las Nuevas (Marie-Victorin and León 1944).

DOMINICAN REPUBLIC. **Duarte** PROVINCE. Loma Guaconejo, Nagua, Cordillera Septentrional Tolentino and Peña (1998); **Hermanas Mirabel** (formerly **Salcedo**) PROVINCE. Arriba, Jamao Afuera, Blanco (Peguero et al. 2007).

Locations from Personal Communications

Ramona Oviedo Prieto (24 July 2019): CUBA. **Mayabeque** PROVINCE. Melena del Sur municipality: Embarcadero La Luisa and Zanja del Donqui to Los Medinas; **Matanzas** PROVINCE. Ciénaga de Zapata municipality: next to the peat zone, La Turba, parallel to Canal de los Patos, SW Jagüey Grande.

Distribution

The preceding data allow us to summarize the geographical and biogeographical distribution for *Calyptrogyne plumeriana*.

Geographical Distribution

The geographical distribution information includes the country in uppercase letters, followed in alphabetical order by the province with the municipalities in parentheses. The origin of the information used for each municipality or district is denoted by adding the superscripts “^H” for herbarium specimen, “^R” for bibliographic reference, “^A” for field observations, and “^P” for personal communications.

CUBA. Provinces Artemisa (municipalities Bahía Honda^H and San Cristóbal^H), Camagüey (municipality Florida^A), Ciego de Ávila (municipalities Bolivia^A and Florencia^A), Cienfuegos (municipalities Aguada^A and Cumanayagua^H), Granma (municipalities Bartolomé Masó^H, Guisa^A and Niquero^R), Guantánamo (municipalities Baracoa^H, El Salvador^A, Imías^A, Maisí^A, San Antonio del Sur^A and Yateras^H), Holguín (municipalities Mayarí^H, Moa^H and Sagua de Tánamo^A), La Habana (municipality La Lisa^H), Matanzas (municipalities Calimete^H, Ciénaga de Zapata^A and Matanzas^A), Mayabeque (municipalities Batabanó^H and Melena del Sur^P), Pinar del Río (municipalities Consolación del Sur^H, La Palma^H, Los Palacios^H, Minas de Matahambre^A, Pinar del Río^H, San Luis^H and Viñales^H),

Sancti Spíritus (municipalities Trinidad^H, Sancti Spíritus^H and Yaguajay^R), Santiago de Cuba (municipalities Guamá^A, Mella^A, Palma Soriano^H, Santiago de Cuba^H, Segundo Frente^A, Songo-La Maya^A and Tercer Frente^A), Villa Clara (municipalities Manicaragua^A, Ranchuelo^A, Sagua La Grande^R and Santo Domingo^A) and municipality Isla de la Juventud^H. Not reported for Las Tunas province (R. Oviedo, pers. com.).

HAITÍ. Departaments Grand'Anse^H, Nord-Ouest^H and Sud^H.

DOMINICAN REPUBLIC. Provinces Duarte^H, El Seibo^H, Hato Mayor^H, Hermanas Mirabal^R (formerly Saucedo), La Vega^H, Monte Plata^H, Samaná^H, San Cristóbal^H, and Valverde^H.

Biogeographical Distribution

Borhidi (1996) and Cano et al. (2017) discussed and outlined the biogeography of Cuba and Hispaniola, respectively, which we follow here. The biogeographical information includes the province in uppercase letters, followed by the subprovince and the corresponding sector, with the districts in parentheses.

Province **CUBA**, subprovince Western Cuba, sector Peninsularicum (Zapatense^H), sector Pinaricum (Sabaloense^H, Indiosense^H, Pinarense^H, Geronense^H), sector Rosaricum (Viñalense^H, Cajalbansen^H; subprovince Central Cuba, sector Havanicum (Jarucoense^H, Güinense^A, Cascajalense^A), Trinidadicum (Trinidadense^H, Spirituense^H), sector Camagüeyicum (Claraense^A, Sagüense^R, Guaimarense^A, Cautoense^R, Gibarense^A), subprovincia Eastern Cuba, sector Moanicum (Nipense^H, Cristalense^H, Moaense^H, Baracoense^A, Purialense^A, Yaterense^H), sector Maestricum (Turquinense^H, Piedraense^R), sector Santiagicum (Uveroense^A).

Province **HISPANIOLA**, subprovince Central, sector Central (Central-Eastern); subprovince Caribbean-Atlantic, sector Bahoruco-Hottense (Hottense), sector Caribbean-Cibense (Cibao Valley, Eastern Caribbean, Yamasense), sector Neiba-Matheux-North-eastern. (Central-Western) and sector Northern (Haitiense, Northern Cordillera, Samanense).

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