An Annotated Checklist of Cuban Palms 6. *Coccothrinax,* Pt. 2. 1972–1995. Nomenclature, Typification, and Distribution

Una Lista Anotada de Palmas de Cuba 6. *Coccothrinax*, Pt. 2. 1972–1995. Nomenclatura, Tipificación y Distribución

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Abstract

The nomenclature, typification and distribution for 14 taxa of the genus *Coccothrinax* in Cuba described between 1972 and 1995 are reviewed and updated. Of the total of 36 types, 9 lectotypes and 22 isolectotypes are designated, 4 holotypes and 1 isotype are identified.

Resumen

Se revisa y actualiza la nomenclatura, tipificación y distribución para 14 taxones del género *Coccothrinax* en Cuba descritos entre 1972 y 1995. Del total de 36 tipos, se designan 9 lectotipos y 22 isolectotipos, se identifican 4 holotipos y 1 isotipo.

Introduction

The Arecaceae (Palmae) family in Cuba includes 15 genera and 98 infrageneric taxa: 79 species; 10 infraspecific taxa; and 9 hybrids. Of the total, 85 infrageneric taxa are endemic (86.7 %), one of the highest proportions among the plant families in the country (Moya 2020d).

This paper is the sixth part of my checklist of palms in Cuba where I am updating the nomenclature and types. The first part was the genera *Hemithrinax*, *Leucothrinax*, and *Thrinax* (Moya 2019); the second was the Cuban *Coccothrinax* up to and including the publication of León

in 1939 (Moya 2020a); although not formally named so, the third was, the genera *Acoelorraphe*, *Colpothrinax*, and *Gaussia* (Moya 2020b); the fourth was *Roystonea* (Moya 2020c); the fifth was a list of native Cuban palms (Moya 2020d). This present article is the second part of my treatment of Cuban *Coccothrinax* and spans the years from 1972 to 1995, which was an unusually productive period. A gap in the years, 1940 to 1971, exists between Parts 1 and 2 because no new information on Cuban *Coccothrinax* appeared during this time.

Coccothrinax includes about 56 species, 7 subspecies, and 1 natural hybrid (Govaerts et al. 2020, which omits *C. savannarum*). Cuba has the greatest diversity of *Coccothrinax*, with 40 species, six subspecies, and the only hybrid in the genus, comprising a total of 47 taxa, all of them endemic except *C. fragrans* (Moya 2020a). Dransfield et al. (2008) noted that *Coccothrinax* is restricted to limestone or serpentine substrates, and occurs from sea level up to about 1,000 m elevation.

As Part 2, The main objective of this paper is to update the nomenclature, typification, and distribution for 14 Cuban *Coccothrinax* named and described from 1972 to 1995. Part 1 (Moya 2020a) and this present paper will form the basis for a future monograph of *Coccothrinax* in Cuba, the center of its diversity.

Materials and Methods

I examined the protologues, descriptions, combinations, and status changes for all taxa of Cuban *Coccothrinax*, including Borhidi et al. (1978), Borhidi and Kereszty (1979), Muñiz and Borhidi (1982a, 1982b), Borhidi and Muñiz (1985), and Borhidi and Hernández (1995). Particular attention was paid to matters of nomenclature and the designation and disposition of type specimens.

For the typification of the names, I followed the recommendations of the International Code of Nomenclature for algae, fungi and plants (The Shenzhen Code, Turland et al. 2018), with special emphasis on articles 8.3, 9.1, 9.2, 9.6, and 9.17.

I found a total of 14 specimens of *Coccothrinax* with some category of type designation described for Cuba from 1972 to 1995 in three herbaria: BP, HAC (National Herbarium of Cuba "Onaney Muñiz"), and US (all herbaria acronyms from Thiers 2016). I also reviewed all pertinent material of the Institute of Ecology and Systematics at HAC. All specimens cited were examined from high-resolution photographs except for those at HAC, which I examined in person. Specimens seen by the authors are marked with "!," those not seen with "[n.v.]," those without marks were seen as digital images, while those with [?] means that it has not been located.

Six primary collectors are responsible for these 14 collections representing 14 valid species of *Coccothrinax* in Cuba.

For the citation of specimens from HAC, where collections of several Cuban historical herbaria are currently maintained, I followed Regalado et al. (2008) for more precise designation. Thus, EEAB refers to the numbering of C. F. Baker at the Santiago de las Vegas Agronomic Experimental Station; LS, to the series of the Colegio de La Salle in Vedado (Havana); UO, to the University of Oriente (for which labels distinguishing Cuban plants are indicated with the initials "PC"); and the Serie SV, which has labels from the Herbarium of the Experimental Station of Santiago de las Vegas in the post-1959 era (here labels of the Experimental Station and the Botanical Institute have been used interchangeably). Borhidi and Muñiz used different labels in the palm collections; for SV-EEAB, they were until 1970 designated EEAB (*Coccothrinax borhidiana*, *C. elegans, C. moaenisis* and *C. munizii*); for SV, they were until 1978 using the EEAB labels with a stamp of "HAC" with the herbarium registration number (*C. baracoensis, C. camagueyana* and *C. microphylla*); and for SV-IB, they were in the 1990s using labels of the Botanical Institute (*C. pumila*). Sometimes other numbers were added to the number assigned at the time of formally entering the specimen into a particular herbarium that eventually became part of HAC; the number is still cited as being at HAC but is specified by adding "ex" followed by the acronym and the digits referring to the corresponding series, if any.

Henderson et al. (1995) considered numerous *Coccothrinax* taxa as synonyms, which I note under the corresponding taxon. I generally disagree with their erroneous and overly expansive synonymy because they did not study these taxa extensively in the field; therefore, I reject most of their findings for *Coccothrinax*.

Borhidi and Muñiz (1986 and 1996) discussed and outlined the biogeography of Cuba, which I follow here. The geographical distribution includes the country in uppercase letters followed in alphabetical order by the province with the municipalities in parentheses. The biogeographical distribution includes the province in uppercase letters followed by the subprovince and the corresponding sector with the districts 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 author field observations, and "^{P}" for personal communications.

1. *Coccothrinax baracoensis*, at or near the type locality, west of Baracoa, Guantánamo, Cuba. (© 2016 D. R. Hodel).

2. *Coccothrinax borhidiana* on limestone by the seashore at the type locality, east of Matanzas, Matanzas, Cuba. (© 2016 D. R. Hodel).

Results and Discussion

Coccothrinax baracoensis Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 440 (1981 publ. 1982). **Fig. 1.**

Type: CUBA. Guantánamo province, [Baracoa municipality], "*Arroyo Blanco al oeste de Baracoa,*" 19 Feb. 1978, *O. Muñiz 15105*, collected by B. Muñoz and R. Fleites (lectotype, designated here, HAC 35535D ex SV!; isolectotypes, HAC 35535A ex SV!, HAC 35535B ex SV!, HAC 35535C ex SV!).

Geographical Distribution. CUBA. Province Guantánamo (Baracoa[H]).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Moanicum (Baracoënsis[H]) I provide this information because Borhidi and Muñiz (1986) did not do so.

Muñiz and Borhidi (1982) noted *Muñiz 15105* as the holotype of *Coccothrinax baracoensis* but without designating which of the four specimens was the holotype, thus creating syntypes. Here I designate HAC35535D as the lectotype and the three duplicates at HAC as isolectotypes.

Henderson et al. (1995) listed *Coccothrinax baracoensis* as a synonym of *C. miraguama*.

Coccothrinax borhidiana O. Muñiz, Acta Agron. Acad. Sci. Hung. 27: 437 (1978). **Fig. 2.**

Type. CUBA. Matanzas province, [Matanzas municipality], "*litus calcarcum maritimum altum in Punta Seboruco, inter Jibacoa et Matanzas,*" 14 May 1970, *Muñiz s.n.* (lectotype, designated here, HAC 27118B ex SV-EEAB!; isolectotypes: BP 516630, BP 516633, HAC 27118A ex SV-EEAB!).

Paratype. CUBA. Matanzas province and municipality, Punta Seboruco, 29 May 1974, *Borhidi, Del Risco & Capote s.n.* [n.v.]). This specimen has not been located.

Geographical Distribution. CUBA. Province Matanzas (Matanzas[H]: Punta Guanos).

Biogeographical Distribution. CUBA province, Central Cuba subprovince: sector Havanicum (Havanense[H]) (Borhidi and Muñiz 1986).

Borhidi and Muñiz (1982) designated *Muñiz & Borhidi 15106* as the holotype of *Coccothrinax borhidiana*. In doing so they referred to a complete collection of multiple sheets without

designating a particular specimen as the holotype, thus creating syntypes. Here I designate HAC27118B, which best corresponds to the diagnosis of the species, as the lectotype, and the three duplicates at HAC and BP as isolectotypes .

Coccothrinax camagueyana Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 441 (1981 publ. 1982). **Fig. 3**

Type. CUBA. Camagüey province, [Sierra de Cubitas municipality], "*en bosques semideciduos al pie del Cerro Tuabaquey, Sierra de Cubitas,*", ft., 28 Oct. 1977, *Muñiz & Borhidi 15106* (lectotype, designated here, HAC 35536B ex SV!; isolectotypes: HAC 35536A ex SV!, HAC 35536C ex SV!, HAC 35536D ex SV!, HAC 35536E ex SV!, HAC 35536F ex SV!, BP [?]).

Geographical Distribution. CUBA. Province Camagüey (Sierra de Cubitas^{H}).

Biogeographical Distribution. CUBA province, Central Cuba subprovince: Camagüeyicum (Camagüeyense^{H}) (Borhidi and Muñiz 1986).

3. *Coccothrinax camagueyana*, Camagüey, Cuba. Reprinted from Borhidi (1996, p. 340, fig. 212).

Borhidi and Muñiz (1982) designated *Muñiz & Borhidi 15106* as the holotype of *Coccothrinax camagüeyana*. In doing so they referred to a complete collection of multiple sheets without designating a particular specimen as the holotype, thus creating syntypes. Here I designate HAC ex PC4271 as the lectotype and the five duplicates at HAC as isolectotypes although BP informed me that they were unable to find this specimen in the herbarium. BP informed me that they were unable to find this specimen in the herbarium.

Coccothrinax camagueyana is known only from the type and has never been recollected. Henderson et al. (1995) listed it as a synonym of *C. gundlachii*.

Coccothrinax crinita subsp. ***brevicrinis*** Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 448 (1981 publ. 1982). **Fig. 4.**

Type. CUBA. Cienfuegos province, [Cumanayagua municipality], "*San Juan de Ulloa, San Blas, cerca de La Sierra,*" 200–300 m, 26 Apr. 1930, *Jack. 7963a* p.p., *emend. Moya* (lectotype, designated here, HAC ex PC4271!; isolectotype: US 00014306 [n.v.]).

Paratypes. CUBA. Cienfuegos province, Cumanayagua municipality: Buenos Aires, 12 Jul. 1929, *León 14033* (HAC ex LS 4267!, HAC ex EEAB.1!, HAC ex EEAB.2! [L.7963]); San Juan de Ulloa, Mar.1931, *Jack 7963b* p. p. (HAC ex LS4263!, HAC ex LS4266!, HAC ex LS4272!); Guajimico, Sep. 1934, *León 16170*, collected by F. Gamboa and R. Nin (HAC ex LS4269!).

Geographical Distribution. CUBA. Provinces Cienfuegos (Cumanayagua^{H}), Sancti Spíritus (Trinidad^{H}).

Biogeographical Distribution. CUBA province, Central Cuba subprovince: sector Trinidadicum (Spirituënse^{H}, Trinidadense^{H}). I provide this information because Borhidi and Muñiz (1986) did not do so.

The original *Jack 7963* consists of two specimens each with a different date. According to article 47A.1 of Shenzhen code (Turland et al. 2018) that this situation remedied by adding "*emendavit*" (*emend.*) followed by the name of the author responsible for the change, and "*pro parte*" (*p. p.*). The Code also states, "When an alteration as mentioned in Art. 47.1 has been considerable, the nature of the change may be indicated by adding such words . . . " For this reason, without conflict with the protologue, I add a letter to each of the two specimens to distinguish them. *Jack 7963a* p. p., *emend. Moya* collected in April 26, 1930 will be the type, with the date in the protologue. The other specimen collected in March 1931 will become a paratype, *Jack 7963b* p. p.

4. *Coccothrnax crinita* subsp. *brevicrinis*, La Yaba, Cienfuegos, Cuba. (© 2016 D. R. Hodel).

5. *Coccothrinax elegans*, atop a limestone monolith, El Raudal, Guisa, Granma, Cuba. (© 2017 D. R. Hodel).

Borhidi and Muñiz (1982) designated *Jack 7963* as the holotype of *Coccothrinax crinita* subsp. *brevicrinis* at HAC, collected on April 26, 1930 (not in 1940 as they wrote). In doing so they referred to a complete collection of multiple sheets without designating a particular specimen as the holotype, thus creating syntypes. Here I designate HAC ex PC4271 (*Jack 7963a* p. p., *emend. Moya*) as the lectotype and the duplicate at US with the same date as isolectotype.

Moya et al. (2016) expanded the distribution of *Coccothrinax crinita* subsp. *brevicrinis* to Sancti Spíritus province based on their collection from Pitajones, municipality of Trinidad.

Coccothrinax elegans O. Muñiz & Borhidi, Acta Bot. Acad. Sci. Hung. 27: 442 (1981 publ. 1982). **Fig. 5.**

Type: CUBA. Santiago de Cuba province, [Tercer Frente municipality], "*Mogotes de caliza, finca de Demajagua, Matías, Sierra Maestra, Oriente,*" 23 Oct. 1969, *Borhidi & Muñiz s.n.* (holotype, identified here, HAC 27933A ex SV-EEAB!, HAC 27933B ex SV-EEAB!; isotypes BP [?]).

Paratype. CUBA. Santiago de Cuba province, Tercer Frente municipality, *in mogotis calcarris ad Pozo Prieto supra rivum río Mogote, Matías*, 22 Oct. 1969, *Borhidi & Muñiz s.n.* (n.v.).

Geographical Distribution. CUBA. Provinces Granma (Guisa[H]) and Santiago de Cuba (Contramaestre[H]).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Maestricum (Bairense[H]) (Borhidi and Muñiz 1986).

Borhidi and Muñiz (1982) designated *Muñiz & Borhidi s.n.* as the holotype of *Coccothrinax elegans* at HAC and the isotype at BP. Borhidi wrote "Holotypus!" on the two specimens at HAC, so both are considered the holotype. BP informed me that they were unable to find this specimen in the herbarium

Carlo Morici and Raúl Verdecia expanded the distribution of *Coccothrinax elegans* when they collected it 23 May 2003 in "El Raudal," Guisa municipality, Granma province in 2003 (*CMR 704*, *CMR 705*, *CMR 706*, which they deposited at HMC).

Henderson et al. (1995) listed *Coccothrinax elegans* as a synonym of *C. miraguama*.

6. *Coccothrinax fagildei*, a cespitose species on limestone substrate, at or near the type locality, Laguna Baconao, Santiago, Cuba. (© 2017 D. R. Hodel).

Coccothrinax fagildei Borhidi & O. Muñiz, Acta Bot. Hung. 31: 227 (1985). **Fig. 6.**

Type. CUBA. Santiago de Cuba province, [Santiago de Cuba municipality], "*en diente de perro costero a 300 m del mar y 200 m al oeste del Río Verraco,*" 25 Apr. 1984, *Muñiz 15021,* collected with *J. A. Fagilde* and *B. González* (holotype HAC [?]).

Geographical Distribution. CUBA. Province Santiago de Cuba (Santiago de Cuba).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Santiagicum (Guantanamense) (Borhidi and Muñiz 1986).

Borhidi and Muñiz (1985) designated *Muñiz 15201* as the holotype of *Coccothrinax fagildei* at HAC, but this specimen has not been located.

Henderson et al. (1995) listed *Coccothrinax fagildei* as a synonym of *C. miraguama*.

Coccothrinax leonis O. Muñiz & Borhidi, Acta Bot. Acad. Sci. Hung. 27: 443 (1981 publ. 1982). **Fig. 7.**

Type. CUBA. Provincia Guantánamo, [Guantánamo municipality], "*sobre rocas calizas de la Sierra del Guaso, cerca Guantánamo Oriente*", Oct. 1939, *León 17362* (lectotype HAC ex LS4358!; isolectotype HAC [?]).

Paratype. CUBA. Guantánamo province and municipality, Las Ninfas, represa del Guaso, Guantánamo, Feb. 1939, *León 19014*, collected with Marie Victorin (HAC ex LS4357, HAC ex EEAB).

Geographical Distribution. CUBA. Province Guantánamo (Guantánamo [H]).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Santiagicum (Guantanamense[H]). I provide this information because Borhidi and Muñiz (1986) did not do so.

Muñiz and Borhidi (1982) designated *León 17362*, consisting of two specimens, as the holotype and isotype, respectively, of *Coccothrinax leonis* at HAC. However, one specimen has been lost, presumably the holotype because Borhidi wrote "ISOTYPUS" on the label of the remaining one, HAC ex LS4358; thus, here I designate this specimen as the lectotype.

Henderson et al. (1995) listed *Coccothrinax leonis* as a synonym of *C. miraguama*.

7. *Coccothrinax leonis*, San Fernando, Guantánamo, Cuba. *MR 1707*. (© 2017 D. R. Hodel).

Coccothrinax microphylla Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 444 (1981 publ. 1982).

Type. CUBA. Province Guantánamo, [San Antonio del Sur municipality], "*en rocas calizas áridas, ladera oeste del Abra de Mariana, San Antonio del Sur*," 17 Feb. 1978, *O. Muñiz 15103,* collected by B. Muñoz and R. Fleites, (lectotype, designated here, HAC 35534B ex SV!; isolectotypes HAC 35534C ex SV!, HAC 35534D ex SV!, HAB 35535A [?]).

Geographical Distribution. CUBA. Province Guantánamo (San Antonio del Sur[H]: Abra de Mariana).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Santiagicum (Guantanamense[H]) (Borhidi and Muñiz 1986).

Muñiz and Borhidi (1982) noted *Muñiz 15103* as the holotype of *Coccothrinax microphylla* at HAC. In doing so they did not designate which of the four specimens was the holotype, thus creating syntypes. Here I designate HAC 35534B as the lectotype, and the two duplicates at HAC as isolectotypes. The specimen with the reproductive part, purportedly HAC 35534A, used in the description has not been located at HAC.

On the EEAB labels the numbers "*104B*, *104C*, *104D*" are written in pencil; they should be *15103* as it appears in the protologue.

Coccothrinax microphylla is known only from the type and has never been recollected. Henderson et al. (1995) listed it as a synonym of *C. pauciramosa*.

Coccothrinax moaensis (Borhidi & O. Muñiz) O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 451 (1981 publ. 1982). **Fig. 8.**

≡ *Coccothrinax yuraguana* subsp. *moaensis* Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 17: 1 (1971 publ. 1972).

Type. CUBA. Guantánamo province, Yateras municipality, "*Prov. Oriente: Reservacion Cupeyal pr. pag. Yateras in fructicetis sempervirentibus serpentinosis ad rivum Toa,*" 500 m, ft., 9 Feb. 1970, *Borhidi, O. Muñiz & S. Vázquez s.n.* (lectotype, Moya 2020: 4, HAC 27120A ex SV-EEAB!; isolectotypes, HAC 27120B ex SV-EEAB!, HAC 27934 ex SV-EEAB!, BP 503062, BP 503066).

Geographical Distribution. CUBA. Provincies Guantánamo (Yateras[H]) and Holguín (Mayari[H] and Moa[P]).

8. *Coccothrinax moaensis*, on serpentine soil, Yamaniguey, Holguin, Cuba. *MR 1712*. (© 2017 D. R. Hodel).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Moanicum (Moaënse[H] and Nipense[H]) (Moya 2020e).

Muñiz and Borhidi (1982) noted *Borhidi, O. Muñiz & Vázquez s.n.* as the type of *Coccothrinax yuraguana* subsp. *moaensis* at HAC without designating which of the three specimens was the holotype, thus creating syntypes. I (Moya 2020e) designated HAC27120A as the lectotype and the duplicates at HAC and BP as isolectotypes. Also, I corrected some errors in the labels of the types that were in contradiction with the protologue.

Based on *Wright 3221*, I expanded the geographical distribution of *Coccothrinax moaensis* to Mayarí municipality, and the biogeographical distribution to Nipense district (Moya 2020e) . Photographs of D. Suárez confirmed its presence in Yamanigüey in Moa municipality.

Henderson et al. (1995) listed *Coccothrinax moaensis* as a synonym of *C. miraguama*.

Coccothrinax munizii Borhidi, Acta Bot. Acad. Sci. Hung. 17: 2 (1971 publ. 1972). **Fig. 9.**

≡ *Haitiella munizii* (Borhidi) Borhidi, Acta Bot. Acad. Sci. Hung. 25: 2 (1979).

Type. CUBA. [Guantánamo, province, San Antonio del Sur municipality], "*in rupestribus calcareis Macambo, inter pag. San Antonio et Imías, Oriente,*" fl., 16 Mar. 1970, *Borhidi, O. Muñiz & Vázquez s.n.* (holotype, HAC27117A ex SV-EEAB!, HAC27117B ex SV-EEAB!, isotype: BP503061).

Geographical Distribution. CUBA. Province Guantánamo (San Antonio del Sur[H]).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Santiagicum (Guantanamense[H]) (Borhidi and Muñiz 1986).

Borhidi and Muñiz (1972) designated *Borhidi, O. Muñiz & Vázquez s.n.* as the nomenclatural type of *Coccothrinax munizii* at HAC. They posted photos of HAC27117A and HAC27117A as types, which are interpreted as the holotype, and noted the isotype at BP. Borhidi and Kereszty (1979) offered a new combination for the species as *Haitiella munizii* (Borhidi) Borhidi.

Henderson et al. (1995) listed *Coccothrinax munizii* as a synonym of *C. ekmanii*.

9. *Coccothrinax munzii*, on limestone rocks by the sea shore, near the type locality, San Antonio del Sur, Guantánamo, Cuba. (© 2016 D. R. Hodel).

10. *Coccothrinax nipensis*, at the type locality, Loma Bandera, Sierra de Nipe, Mayarí, Holguín, Cuba. (© 2017 D. R. Hodel).

Coccothrinax nipensis Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 446 (1981 publ. 1982). **Fig. 10.**

Type. CUBA. Holguín province, [Mayarí municipality], "*in charrascales de la Loma Bandera, Mayarí, Sierra de Nipe,*" 19 Apr. 1960, *Alain 7758* [not *7785*]*, with Acuña & Ramos* (lectotype, designated here, HAC 19688 ex LS!; isolectotypes: HAC ex EEAB!, HAC ex LS-UO1!, HAC ex LS-UO2!).

Paratype. CUBA. Holguín province, Mayarí municipality, al pie de la Loma Mensura, en charrascales, Pinares de Mayarí, 18 Jul. 1970, *Borhidi & Muñiz s.n.* (n.v.).

Geographical Distribution. CUBA. Provincies Holguín (Mayari[H]).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Moanicum (Nipense[H]). I provide this information because Borhidi and Muñiz (1986) did not do so.

Muñiz and Borhidi (1982) noted *Alain, Acuña & Ramos 7758* as the type of *Coccothrinax nipensis* at HAC (although they wrote it as *Alain 7785*) without designating which of the specimens was the holotype, thus creating syntypes. Here I designate HAC 19688 as the lectotype, on which Borhidi wrote "HOLOTYPUS" in 1979, and the three duplicates at HAC as isolectotypes.

The collector names differ on the labels; some have Alain and Acuña while others have Alain, Acuña and Ramos as in the protologue.

Henderson et al. (1995) did not list *Coccothrinax nipensis*.

Coccothrinax pumila Borhidi & J. A. Hern., Acta Bot. Hung. 38: 195 (1993–1994 publ. 1995). **Fig. 11.**

Type. CUBA. Province Guantánamo, [Niceto Pérez municipality], Morrillo Chico, "*área de Hatibonico, oeste de la Base Naval de Guantánamo*," May 1994, *J. A. Hernández s.n.* (lectotype, designated here, HAC 40298.1 ex SV-IB!; isolectotype: HAC40298.2 ex SV-IB!).

Geographical Distribution. CUBA. Province Guantánamo (Niceto Pérez[H]).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Santiagicum (Guantanamense[H]). I provide this information because Borhidi and Muñiz (1996) did not do so.

11. *Coccothrinax pumila*, a cespitose species, at or near the type locality, Hatibonico Reserva Ecológia, Guantánamo, Cuba. *MR 1809*. (© 2018 D. R. Hodel).

Muñiz and Hernández (1995) noted *J. A. Hernández s.n.* as the holotype of *Coccothrinax pumila* at HAC without designating which of the two specimens was the holotype, thus creating syntypes. Here I designate HAC 40298.1 as the lectotype, and a duplicate at HAC as the isolectotype.

Henderson et al. (1995) did not list *Coccothrinax pumila*.

Coccothrinax trinitensis Borhidi & O. Muñiz, Acta Bot. Hung. 31: 228 (1985). **Fig. 12.**

Type. CUBA. [Sancti Spíritus province, Trinidad municipality], "*Falda Norte del Pico Potrerillo, sobre diente de perro, cerca de la cúspide, Sierra del Escambray,*" fl., ft., 8 Jul. 1984, *Muñiz 15061*, collected with *M. Fernández* (holotype [?]).

Geographical Distribution. CUBA. Provinces Sancti Spíritus (Trinidad[R]), Cienfuegos (Cumanayagua[R]).

12. *Coccothrinax trinitensis*, on a limestone hill, at the type locality, Pico Potrerillo, Trinidad, Sancti Spíritus, Cuba. (© 2016 D. R. Hodel).

Biogeographical Distribution. CUBA province, Central Cuba subprovince: sector Trinidadicum (Trinidadense). I provide this information because Borhidi and Muñiz (1986) did not do so.

Borhidi and Muñiz (1985) designated *Muñiz 15061* as the holotype of *Coccothrinax **t**rinitensis* but did not note the herbarium where they deposited the type. I have failed to locate it at HAC and BP informed me that they do not have this specimen in the herbarium.

Borhidi and Muñiz (1986) did not note the biogeographical location. Suárez and Rodríguez (2015) reported this species from Cienfuegos province.

Henderson et al. (1995) listed *Coccothrinax trinitensis* as a synonym of *C. miraguama*.

Coccothrinax yunquensis Borhidi & O. Muñiz, Acta Bot. Acad. Sci. Hung. 27: 447 (1981 publ. 1982). **Fig. 13.**

Type. CUBA. Guantánamo province, [Baracoa municipality], "*paredones húmedos de caliza de la cumbre del Yunque de Baracoa,*" 500 m, fl., 26 Nov. 1978, *Borhidi 15279*, collected with P. Herrera (holotype HAC [?]; isotype BP [?])

Geographical Distribution. CUBA. Province Guantánamo (Baracoa^{H}: El Yunque de Baracoa).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Moanicum (Puraliense^{H}) (Borhidi and Muñiz 1986).

Borhidi and Muñiz (1982) designated *Borhidi 15279* as the holotype of *Coccothrinax yunquensis* at HAC and the isotype at BP, but no specimens have been located at HAC or BP.

Henderson et al. (1995) listed *Coccothrinax yunquensis* as a synonym of *C. salvatoris*.

Note-Erratum

Here I provide an update and correction to the treatment of *Coccothrinax bermudezii* in Moya (2020a).

Coccothrinax bermudezii León, Mem. Soc. Cub. Hist. Nat. ''Felipe Poey'' 13: 124 (1939).

Biogeographical Distribution. CUBA province, Eastern Cuba subprovince: sector Moanicum (Baracoënsis^{H}).

13. *Coccothrinax yunquensis*, at the type locality, at the summit of the limestone monolith El Yunque, Baracoa, Guantánamo, Cuba. (© 2018 D. R. Hodel).

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