

NEW PLANTS IN CUBA I

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The present study contains the descriptions of 51 new taxa, revisions of some polymorphic species and a few combinations.

The new taxa are as follows: *Arecaceae*: *Coccothrinax* (1 sp., 1 ssp.); *Urticaceae*: *Pilea* (1 ssp.); *Fabaceae*: *Galactia* (1 sp., 1 ssp.); *Malpighiaceae*: *Malpighia* (2 sp.); *Euphorbiaceae*: *Moacroton* (1 sp., 1 var.), *Euphorbia* (1 sp., 1 ssp.); *Aquifoliaceae*: *Ilex* (2 sp.); *Celastraceae*: *Maytenus* (3 ssp.); *Sapindaceae*: *Allophylus* (1 sp.); *Rhamnaceae*: *Reynosia* (2 ssp.); *Clusiaceae*: *Clusia* (2 sp.); *Myrtaceae*: *Psidium* (1 sp.); *Melastomataceae*: *Calycogonium* (1 sp., 2 ssp.), *Ossaea* (3 sp., 2 var.); *Theophrastaceae*: *Jacquinia* (1 sp.); *Apocynaceae*: *Neobracea* (2 sp., 1 var.); *Boraginaceae*: *Cordia* (3 sp., 1 var.); *Bignoniaceae*: *Tabebuia* (1 sp., 1 ssp.); *Acanthaceae*: *Barleriola* (2 ssp.); *Rubiaceae*: *Exostema* (1 sp.), *Schmidtiottia* (1 sp.), *Rondeletia* (1 sp.), *Casasia* (1 ssp.), *Guet-tarda* (2 sp.), *Shaferocharis* (1 sp.); *Asteraceae*: *Phania* (1 sp.), *Chaptalia* (1 sp.). The taxonomic revision of the following species is done: *Coccothrinax yuraguana*, *Maytenus buxifolia*, *Reynosia mucronata*, *Calycogonium rdsmarinifolium*, *Barleriola saturejoides*, *Casasia nigrescens*.

The authors have undertaken the geobotanical exploration of Cuba. In 1969-70 they realized an expedition of some 140 days identifying and mapping the chief types of vegetation (in 1 : 1 000 000 scale) in Cuba and Isle of Pines. They investigated the floristic and life-form composition of the different vegetational units and during this work collected and identified over 14 000 phanerogamic and cryptogamic specimens discovering a considerable number of taxa new to science. This study contains the first results of their taxonomical work.*

Fam.: *Arecaceae*

Coccothrinax yuraguana (A. Rich.) Leon ssp. moaënsis Borhidi et Muñiz ssp. nova

Palma usque 4 m alta: caudex 8 cm in diam. Frondis vagina tenuis flexibilisque, pars libera subtruncata, emarginata vel incisa, 4-5 cm longa, fibris tenuibus usque 1 mm crassis. Petiolum 30-32 cm longum, 7 mm latum, lamina orbicularis subtus argentea punctis palli-

* Abbreviations:

- LS Herbario del Colegio de La Salle.
Bp Herbarium Musei Hist. Nat. Hungariae, Budapest.
SV Herbario del Estacion Esperimental de Agronomia, Santiago de las Vegas.
UO Herbario de la Universidad de Oriente, Santiago de Cuba.

dis; segmenta 18–20, centralia 23–24 cm longa, basi 2–3 cm connata, apice rotundata, ligula 6 mm longa.

Inflorescentia incurvata, cernua, 20–25 cm longa, ramuli fructiferi usque 3 cm longi; pedicelli 1–1,5 mm longi, apice valde incrassati, fructus glaber, 6–7 mm in diametro.

Typus: Prov. Oriente: Reservacion Cupeyal pr. pag. Yateras in fruticetis sempervirentibus serpentinosis ad rivum Toa. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 9. 2. 1970. Typus: SV; isotypus: Bp. 503062.

C. yuraguana (A. Rich.) Leon

1 a Vagina frondis tenuis flexibilisque, stamina 9 2

b Vagina frondis rigida, stamina 6 ssp. *orientalis* (Leon) Borhidi

2 a Segmenta foliorum 18–20, centralia 23–24 cm longa, basi 2–3 cm connata ssp. *moaënsis* Borhidi et Muñiz

b Segmenta foliorum 24–30, centralia 28–32 cm longa, basi 4–7 cm connata ssp. *yuraguana*

Coccothrinax yuraguana (A. Rich.) Leon ssp. *yuraguana*: Pinar del Rio: Cajalbana

C. yuraguana ssp. *orientalis* (Leon) Borhidi status novus;

Oriente: Sra de Nipe, Sra de Moa: in pinetis.

(Basionym: *C. yuraguana* var. *orientalis* Leon Mem. Soc. Cub. Hist. Nat. 13. 1939. p. 115.)

C. yuraguana ssp. *moaënsis* Borhidi et Muñiz:

Oriente: Sra de Moa: in fruticetis serpentinosis.

Coccothrinax Munizii Borhidi sp. nova (Figs 1, 2, 3)

Palma gracilis usque ad 8–15 m alta, caudex 6–8 cm in diam. Frondis vagina rigida, 25–30 cm longa, pars libera late triangularis, antice rotundata, plerumque sine fibris liberis acutis, fibris vaginae rigide intertextis superne incrassatis usque ad 3–5 mm latis. Petiolus brevis, 25–30 cm longus ad basin 10–12 mm, infra apicem 8–10 mm latus. Ligula plane adpressa, late triangularis, 5–7 mm longa. Lamina triangulari-1/3-orbicularis, cuneata, rigida, utrinque albida vel albicans, nervis longitudinalibus supra conspicuis subtus prominentibus, punctulis fusciscentibus prominulis praedita. Segmenta 16–20, centralia 20–25 cm longa et 2,8–3,0 cm lata, basi 8–9 cm connata, versus apicem bis longe angustata, apice 1–2 cm longe acuminata, acuta; lateralia extrema 18–20 cm longa.

Inflorescentia reflexa, cernua, 50–60 cm longa, dense bracteosa; inflorescentiae partiales usque 5, cernuae; bractee longe acuminatae usque ad apicem cucullatum, ramuli fructiferi strigillosi et breviter puberuli, bracteolae albae membranaceae transparentes, persistentes, subulatae, 2 mm longae, pedunculi 0,3–0,5 mm longi, crassi, persistentes. Perianthii segmenta 6; 0,6–0,8 mm longa, basi connata, late triangularia, filamentis duplo latoria. Stamina 6–9 (plerumque 9), filamenta basi connata, 1–1,5 mm longa, segmenta perianthii duplo superantia.

Antherae 0,4–0,7 mm longae, non sagittatae. Ovarium ovatum, dense muricato-scabridulum, stylus 3 mm longus, apice dilatatus, stigma trilobulata.

Fructus subglobosi non omnino maturi 5–6 mm diam, pericarpium dense muricatum tenue. Semina glabra, 4–5 mm in diam., surculis usque ad medium seminum; stigma subbasale.

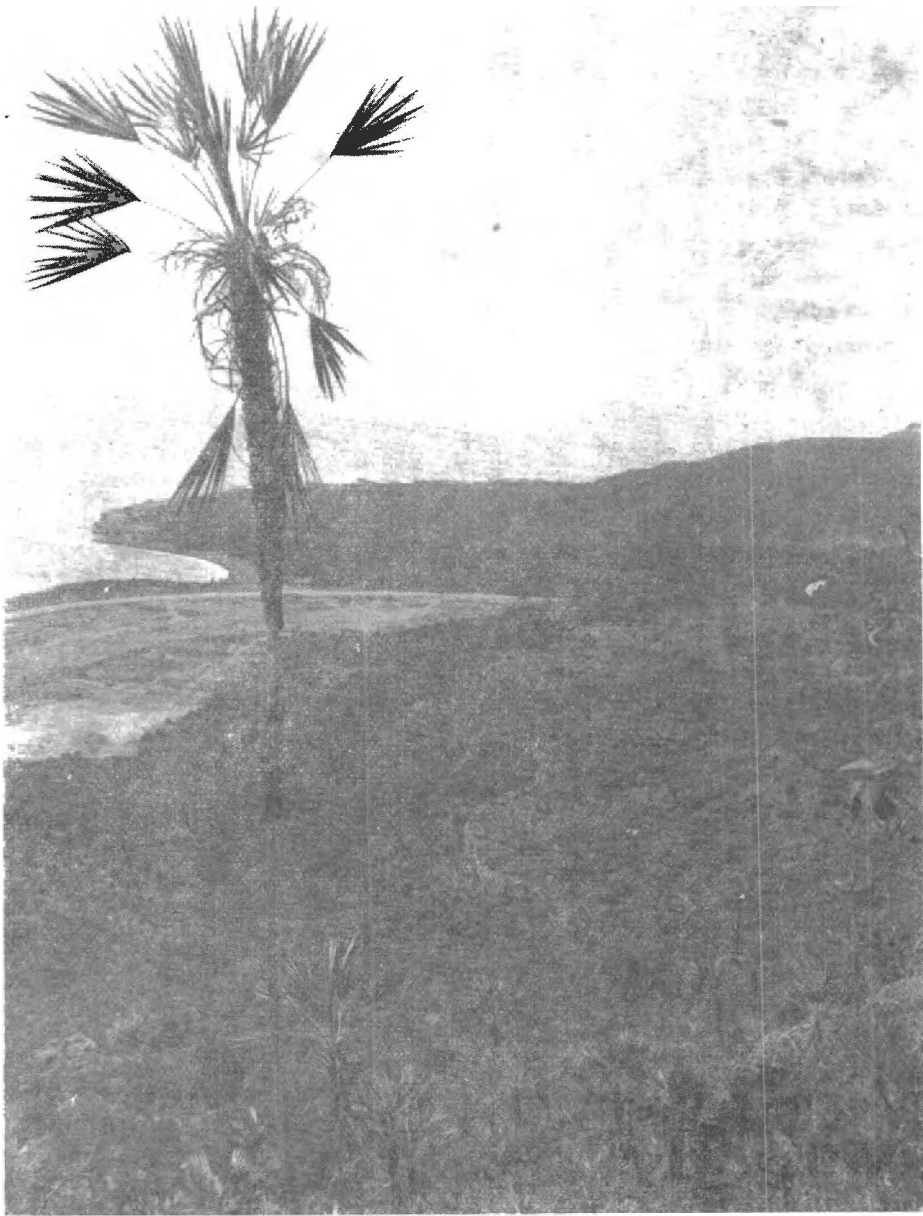


Fig. 1. Coccothrinax Muñizii in the type locality on the calcareous rocky hillsides of Macambo near San Antonio del Sur



Fig. 2. Type specimen of *Coccothrinax Muñizii*, SV. 27117 A

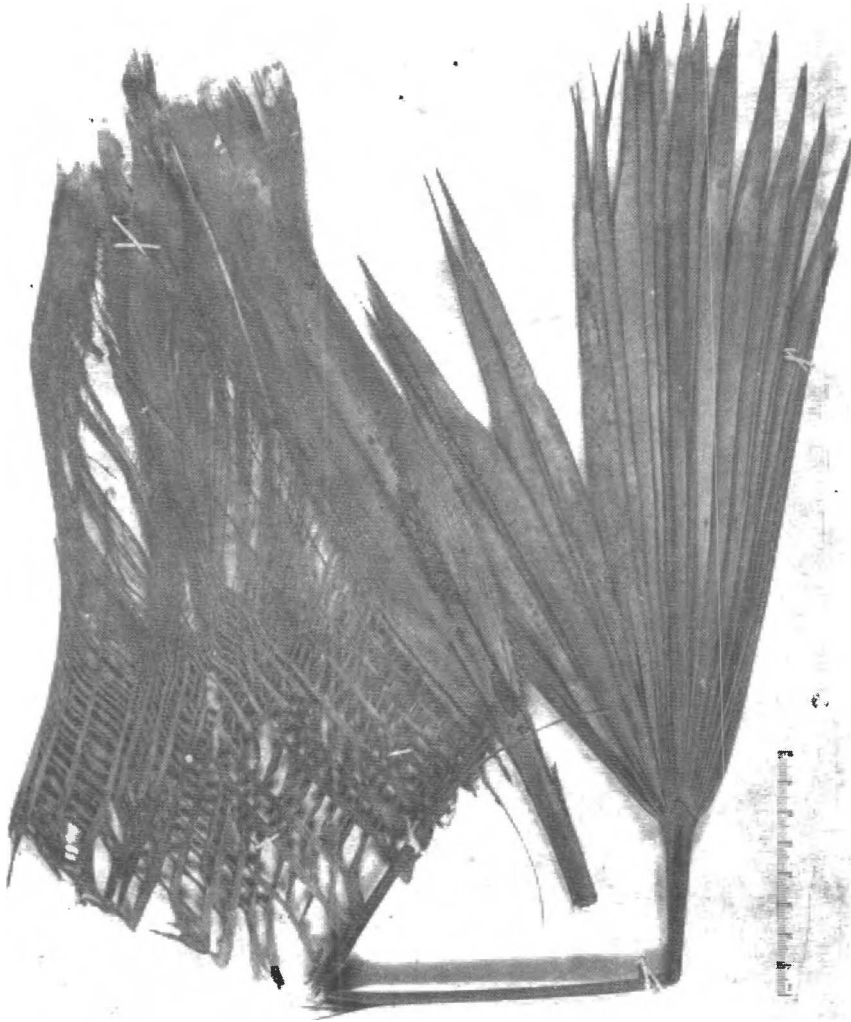


Fig. 3. Type specimen of *Coccothrinax Muñizii* SV. 27117 B

Typus: Cuba, Prov. Oriente; in rupestribus calcareis Macambo inter pag. San Antonio del Sur et Imias. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ. 16. 3. 1970.

Typus: SV, isotypus: Bp. 503061

Fam.: Urticaceae

Pilea uninervis Griseb. ssp. *bairensis* Borhidi et Muñiz ssp. nova

Caulis ascendens vel erectus, 30–45 cm altus, 4–5 mm crassus, in sicco angulate striatus, compressus, internodiis longis brevisque alternantibus in nodis articulatis. Stipulae conspicuae, apice truncatae, 4–7 mm longae, tenuiter membranaceae, in sicco nigrescentes. Folia glabra oblongo-lanceolata, apice longe acuminata, acuta, basi longe cuneata, sessilia, 10–14 cm longa, 1,6–2,3 cm lata, margine mucronato-serrata, nervo medio supra impresso, subtus crasse prominente, lateralibus supra in vivo non, in sicco vix prominulis, subtus inconspicuis, cystolithis tenuibus dense quo-quo-versus directis, supra in sicco olivacea, subtus pallidiora, subcarnosa in sicco membranacea vel chartacea.

Inflorescentiae unisexuales ex axillis foliorum superiorum abeuntes, laxae, cymoso-paniculatae, longe pedunculatae, pedunculis 6–8 cm longis. Flores feminei sessiles, perianthio tripartito inaequilongi, staminodia 0,5 mm longa basi incrassata. Carcerulus oblongo-ovatus, 1 mm longus.

Obs.: Habitu, forma foliorum *P. uninervis* Griseb. affinis, quae inflorescentia dense glomerulata, foliis brevioribus spatulato-lanceolatis crenato-serratis, cystolithisque crassioribus et brevioribus bene distinguenda est.

Typus: Cuba, Prov. Oriente: Mogotes de Baire, Farallon de Pozo Azul prope pag. Matias, alt. 350 m s. m. Leg. A. BORHIDI et O. MUÑIZ 21. 10. 1969. No. 27 133. SV.

Fam.: Fagaceae

Quercus oleoides Schlecht. et Cham. ssp. *sagraeana* (Nutt.) Borhidi status novus

Basionym: *Quercus sagraeana* Nutt. in North American Sylva 1842. p. 1117.

Synonyma: *Quercus virginiana* Mill var. *sagraeana* (Nutt.) Trel. in Mem. Nat. Acad. Sci. 20. p. 113. 1924.

Quercus oleoides Schlecht. et Cham. var. *sagraeana* (Nutt.) C. H. Mull. in Amer. Midd. Nat. 65. p. 37. 1961.

It is probably that *Quercus oleoides* Schlecht. et Cham. ssp. *sagraeana* (Nutt.) Borhidi is a hybridogene taxon, which may have originated by the introgression of the populations of the *Quercus oleoides* and the *Quercus virginiana* (or perhaps an other species) in the Pleistocene. It is to suppose that a terrestrial connection existed during that period between West Cuba, Florida and Yucatan. After the Pleistocene only the younger, more adaptable and even up to now very variable hybridogene population might have been able to survive the climatic changes of the Post-Pleistocene and Holocene, and the area of the parent-taxa regressed. Having an autonomous and isolated area, the West-Cuban taxon is to be considered as a subspecies of the most related *Quercus oleoides* Schlecht. et Cham.

Fam.: Magnoliaceae

Talauma minor Urb. Symb. Ant. VII. p. 222–223, 1912.

ssp. *minor*: Oriente: Sierra Maestra

ssp. *oblongifolia* (Leon) Borhidi status novus

(Basionym: *Talauma minor* Urb. var. *oblongifolia* Leon Contr. Ocas. Mus. Hist. Nat. Col. "La Salle" 9. p. 4. 1950): Oriente: Monte Verde, Sra de Nipe, Cristal, Moa, Baracoa.

ssp. *orbiculata* (Britt. et Wils.) Borhidi comb. et status novus

(Basionym: *Talauma orbiculata* Britt. et Wils. in Bull. Torrey Club 50. p. 37. 1923.)

Fam.: Fabaceae

Galactia Acunana Borhidi et Muñiz sp. nova (Fig. 4)

Caules vetustiores lignosi, lenticellis prominentibus, hornotini herbacei, flexuosi, ferrugineo-pilosi. Folia 3-foliolata, 2–4 cm longe petiolata, trachite canaliculato et ferrugineo-piloso vel ferrugineo-hirsuto, foliolum centrale 3–4 cm longum, 1,3–1,8 cm latum, ellipticum, basi obtusum, apice rotundatum, emarginatum et mucronulatum, petiolo glabro, usque 0,4 mm longo, ad petiolulum articulatum connecto, petiolulo brunneo vel ferrugineo-hirsuto, 1–2 mm longo, foliola lateralia 2–3 cm longa et 1,4–2,0 cm lata, ovata vel suborbiculata, asymmetrica, petiolulis 1–2 mm longis, hirsutis, centrale subaequalibus. Limbus foliorum supra glaber, subtus adpresse albo-pilosus, nervis subtus parum prominentibus, chartaceus.

Stipulae foliorum lineares, subulatae 1–2 mm longae. Inflorescentia racemosa, pauci- vel multiflora (3–18), ferrugineo-hirsuta, pedunculo usque 6–10 cm longo, inflorescentia ipsa usque 7 cm longa, flores 3–5 in glomerulis bracteatis, 2–10 mm longe pedicellatis.

Flores bibracteolati, bractee ovatae, acuminatae, 3–4 mm longae. Calyx symmetriae bilateralis, 12–15 mm longus, lobi 4, acuminati, ferrugineo-pilosi. Corolla 2,0–2,5 cm longa, purpurascens, vexillum 20–24 mm longum, ovatum, alis et carina parallelum. Stamina exserta, 2,2–2,7 mm longa, stamen vexillare liberum, filamenta connata usque ad 1,8–2,0 cm, pars libera filamentorum parte connata \pm aequilonga. Stylus filiformis, glaber, stigma parvum, terminale, capitatum. Fructus nobis ignotus.

Typus: Prov. Pinar del Rio; Peninsula Guanahacabibes, inter La Lena et Farito. Leg.: MATIAS YERO, 8. 9. 1967. No. 26 576. SV.

Peninsula Guanahacabibes, Maria la Gorda. Leg. Grupo "Humboldt" I. 1968. No. 26 542. SV.

Obs.: Ex affinitate *Galactiae rudolphioidis* (Griseb.) Benth. et Hook., quae foliis coriaceis, ferrugineo-pilosis, centralibus longe petiolulatis, subtus nervis ferrugineis prominentibus, margine revolutis, bracteis minoribus, filamentis usque 1,3–1,5 cm connatis, parte libera filamentorum inaequale clare distinguitur.

In honorem magistri nostri in investigationibus Florae Cubanae Ing. JULIAN ACUÑA y GALE professoris agronomiae, atque in botanica meritissimi dedicata.

Galactia Earlei Britton ssp. *toaënsis* Borhidi et Muñiz ssp. nova

A typo differt: floribus fructibusque maioribus pedicellatis, bractee 2, triangulares, 1 mm longae, pedunculo 2–3 cm, pedicello 2–3 cm, hirsuto, calyx 4–7 mm, vexillum 8–10 mm, legumen 4–4,5 cm longum.

Holotypus: ALAIN 3748; Prov. Oriente; in silvis cacuminis montis Pico Galán, Sierra de Frijol, prope pag. La Alegria, in regione Toa. Alt.: 1000–1200 m s. m. Leg.: HNO ALAIN I. I. 1954. (sub nom. *G. brachyodon*) LS.

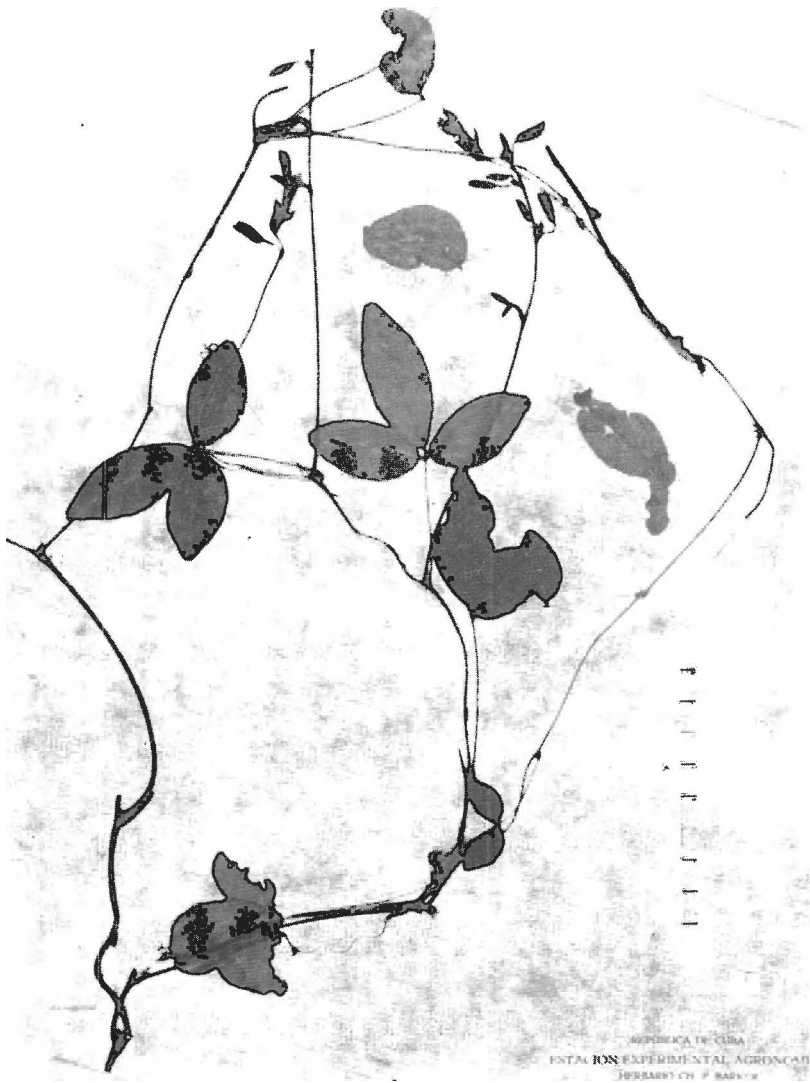


Fig. 4. *Galactia Acunana*, SV. 26576 (type specimen)

Fam.: **Malpighiaceae**

***Malpighia Roigiana* Borhidi et Muñiz sp. nova**

Frutex 1–2 m altus. Rami cylindrici glabri. Folia glabra, nitida, late elliptica vel ovato-orbicularia, 2,5–4,5 cm longa, apice obtusa vel rotundata, mucrone reflexo, nervis reticulatis utrinque valde prominentibus, margine revoluta, spinoso-dentata dentibus utro-

que latere 6—11, spinis hyalinis, dente apicali aequilonga vel brevioris vicinis. Cymae sessiles v. subsessiles, foliis aequilongae vel vix longiores, 2—4-florae. Sepala oblongo-ovata vel late triangularia, 3 mm longa, glandulis duplo brevioribus. Corolla rosea, 15 mm in diametro, petalis 7—9 mm longis crenulato-lobulatis.

Obs.: In honorem Nestoris botanicorum cubanorum Prof.-ris JUAN TOMAS ROIG y MESA, magistri agronomiae, botanicae atque pharmacologiae dedicata.

Typus: SHAFER 13 409; Prov. Pinar del Rio: Sierra de los Organos prope dag. Sumidero. Leg.: A. J. SHAFER et HNO LEON, Aug. 1912. LS.

Prov. Pinar del Rio, Viñales: Mogote de Bandera. Leg.: HNO ALAIN No. 2758. 21. II. 1953. — Prov. Pinar del Rio; Viñales: Sierra de Guasasa, leg.: A. BORHIDI 3. VII. 1970.

Malpighia Acunana Borhidi et Muñiz sp. nova (Fig. 5)

Frutex pulcherrimus, 2—3 m altus. Ramuli teretes, glabri. Folia sessilia vel subsessilia ovata, 4,5—7 cm longa, 3—4,5 cm lata, apice acuminata, acuta, basi rotundata vel cordata, nitida et glabra, nervis utrinque reticulatis et valde prominentibus, coriacea, margine revoluto, sinuato-dentato, dentibus utroque latere 11—16, 3—8 mm longis, saepe recurvatis,

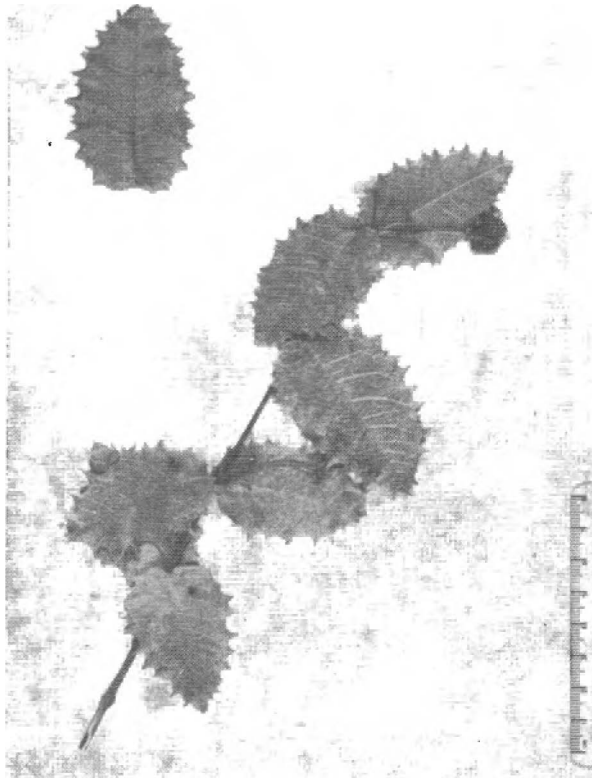


Fig. 5. Type specimen of *Malpighia Acunana*, SV. 27126

dente apicali longiore vicinis. Cymae 3–7-florae, sessiles axillares et terminales, foliis breviores; pedicellis 1,0–1,4 cm longis. Sepala ovata, 2–3 mm longa, glandulae dimidio sepalum longiores. Corolla rosea, 15–20 mm in diam., petala majora 8–10 mm longa. Drupa subgloboso-pyramidata, 11–13 mm longa, rubra.

Obs.: A specie proxima *M. Roigiana* Borhidi et Muñiz foliis ovatis, majoribus, apice acuminatis, margine dentibus numerosioribus, cymis foliis brevioribus, corolla majore bene differt.

Typus: Prov. Oriente; Sierra Maestra, in silvis calcareis aridis “mogotis” supra Finca Demajagua prope pag. Matias. Leg.: A. BORHIDI et O. MUÑIZ, 23. X. 1969. No. 27 126. SV; isotypus: Bp. 503021. — Prov. Oriente; Sierra Maestra, in silvis calcareis aridis supra pag. La Tabla. Leg.: A. BORHIDI et O. MUÑIZ 5. II. 1970.

Fam.: Euphorbiaceae

Moacroton tetramerus Borhidi et Muñiz sp. nova

Frutex vel arbor parva monoica. Rami vetustiores teretes, striati, grisei; hornotini angulati lepidibus centro crassiusculis circumcirca striatis, membranaceis vix radiatis adpressis brunescensibus induti. Stipulae ovato-lanceolatae, crasse coriaceae, rigidae, 1,5–2 cm longae, deciduae. Folia alterna, petiolis 7–16 mm longis, striatis, supra anguste sulcatis, apice glandulas binas sessiles gerentibus, lepidotis, ovato-elliptica vel oblongo-elliptica, basi cuneata v. obtusa et vix in petiolum contracta, apice obtusa vel rotundata, emarginata vel brevissime mucronata, 3–6,5 cm longa, 2–3 cm lata, nervo medio supra impresso, lateralibus utroque latere 8–10 pinnatim dispositis sub angulo 70–80° abeuntibus, utrinque prominentibus et manifeste reticulato anastomisantibus, margine recurvo et crenulato-denticulato, supra nitida, obscure glaucescentia vel nigrescentia, sine lepidibus, subtus opaca, obscure flava et lepidibus crebrioribus sed inter sese remotis obsita, coriacea.

Inflorescentiae unisexuales, masculae vel bisexuales, 6–12 cm longae, lepidotae; bractae ovato-lanceolatae, 1–2 mm longae lepidotae; obtusae, flores masculos 1–2 in axilla gerentes; pedicelli usque 4–6 mm longi. Alabastra globulosa, 0,6–0,8 mm in diam. Sepala 4, ovata obtusa, 1,0–1,2 mm longa, apicem versus barbata; petala 4, breviter ovata, 0,6–0,8 mm longa, apice rotundata et barbata, caeterum glabra. Stamina 5, filamenta crassa, usque 0,2 mm longa, glabra; antherae in alabastro erectae, ovatae. Receptaculum breviter pilosum. Flores feminei ad basim inflorescentiae bisexualis 1–(2) bracteatae, uniflorae, pedicelli 15–20 mm longi. Sepala 4, in aestivatione aperta ovata vel lanceolata, 2 mm longa. Petala nulla. Ovarium obtuse trigonum, lepidotum. Styli 3, horizontaliter divergentes, 1,0 mm longi, ambitu ovati, marginibus reflexis, bilobi, lobis integris obovatis, rotundatis vel obtusis. Capsulae immaturae 3 mm longae.

Obs.: Ex affinitate *M. Ekmanii* (Urb.) Croiz. qui habitu similis, sed foliis 5–10 cm longis, floribus masculis 5-meris, stamina 6, floribus femineis 5-sepalis diversus est.

Typus: Prov. Oriente; Region de Moa, Sierra de la Iberia, supra Bahía de Taco. Leg.: M. LOPEZ FIGUEIRAS No. 689 UO, 19 787 LS. Isotypus: SV.

Moacroton lanceolatus Alain

var. *lanceolatus*

Folia lanceolata vel oblongo-lanceolata, latitudine 3–6-plo longiora, subtus lepidibus magnitudine diversis obiecta; inflorescentia 1,5–4,0 cm longa, stylus 1–2 mm longus. Distributio: Sierra de Moa, Sierra Cristal.

var. *ellipticus* Borhidi et Muñiz var. nova

Folia elliptica vel oblongo-elliptica, latitudine 2–3-plo longiora, subtus lepidibus magnitudine ± aequalibus obiecta; inflorescentia 3–5 cm longa, stylus subsessilis. Distributio: Sierra de Nipe.

Typus: Prov. Oriente; Sierra de Nipe: in fruticetis serpentinosi montis Loma Bandera, in alt. 500 m s. m. **Leg.:** A. BORHIDI et O. MUÑIZ 19. VII. 1970. SV. sine numero; isotypus: Bp. 503302.

Euphorbia Munizii Borhidi sp. nova

Frutex ramosissimus, usque 2 m altus; rami vetustiores teretes, glabri, grisaceo-nigrescentes, hornotini etiam incrassati strigosi, cicatricibus foliorum caducorum parum prominulis obsiti, internodii superne decrescentibus, apice subnullis, cinereo-albicantibus; folia vero decidua, ad apicem ramorum breviorum valde conferta, 2–5 mm longe petiolata, 8–16 mm longa, 4–6 mm lata, late elliptica vel obovata, apice rotundata, 0,4–2,0 mm longe, non rigide mucronata, basi sensim angustata in petiolum contracta, nervo medio supra impresso, subtus valde prominente, supra nitida, in sicco subbullata, utrinque glabra, margine integra, revoluta.

Inflorescentia solitaria terminalis in apice ramorum, folia involucralia ad apicem ramorum 2–3 conferta, subsessilia vel 1–2 mm longe petiolata, lucide scarlatina, 1–2 cm longa, orbiculari-obovata, apice rotundata vel mucronulata, basi sensim angustata, in petiolum contracta, glabra, pedunculis 5–10 mm longis 2–3-plo longiora; bractee 4–6 mm longae, orbiculares, lucide scarlatinae, involucrum solitarium glabrum, 2–4 mm longum, sessile in axillis bractearum, glandulae ellipticae, latere compressae, capsula 3–4 mm longa, glabra.

Obs.: *E. cubensis* Boiss. involucro viridi et foliis magnis, spathulatis, *E. Helenae* Urb. foliis lanceolatis, multo majoribus, margine non revolutis, bracteis 1,5–5,0 cm longis, capsula majore bene distinguendae sunt.

Typus: Prov. Oriente; Sierra de Moa, Aserrio de la Mina Delta supra pag. La Melba, in fruticetis serpentinosi in alt. 500 m s. m. **Leg.:** A. BORHIDI, O. MUÑIZ et S. VAZQUEZ, 19. II. 1970. No. 27 114 SV; isotypus: Bp. 503282; Sierra de Moa: Mina Potosi. **Leg.:** V. SAMEK 28. III. 1968.

Euphorbia Helenae Urb. ssp. grandifolia Borhidi et Muñiz ssp. n.

A typo differt foliis majoribus, 6–14 cm longis, oblanceolatis, inflorescentia longe et crasse pedunculata, bracteis ellipticis, capsulis minoribus, 5–7 mm longis.

Typus: Prov. Oriente; Montes de Moa, in fruticetis serpentinosi montanis ad Mina Delta supra pag. La Melba, in alt. 500 m s. m. **Leg.:** A. BORHIDI et S. VAZQUEZ, 19. II. 1970. SV. sine num.; isotypus: Bp. 503029.

— Prov. Oriente, Montes de Moa, Alto de la Iberia, alt. 700 m s. m. **Leg.:** A. BORHIDI, O. MUÑIZ et S. VAZQUEZ, 23. III. 1970.

Fam.: Aquifoliaceae

Ilex Nunezii Borhidi sp. nova

Frutex ramosus 1–2 m altus. Rami hornotini puberuli; folia 1–2 cm longa, late triangulari-ovata, basi truncata, rotundata vel subcordata, apice sensim angustata, obtusa, supra nitida, nervis obsoletis vel conspicuis, margine integro. Inflorescentia corymbosa 1–3-flora, axillaris vel terminalis, puberula; pedunculo 3–4 mm longo, puberulo, pedicellis 2–3 mm longis; flores 4-meri, calyx papillosus, lobulis late ellipticis, petala suborbicularia, margine pilosa. Drupa subglobosa, 4-locularis, 3–4 mm in diam. stigmatibus late conico coronata, quadri-

partita, extus flavo-brunneo, exocarpio crassiuscule tunicato, mesocarpio carnosio, intus areolato. Pyrena 4, 2—3 saepe abortata, triangularia, 3 mm longa, 2 mm lata, manifeste papilloso-areolata.

Obs.: A specie proxima *Ilici turquinensi* Alain foliis ovatis, basi truncatis, floribus majoribus et pyrenis papilloso-areolatis differt.

Species in honorem Praesidentis Academiae Scientiarum Cubanae, ANTONIO NUÑEZ JIMENEZ professoris geographiae atque speleologiae meritissimi, exploratoris primi montis Pico Suecia nominata.

Typus: Prov. Oriente, Sierra Maestra, Pico Turquino, in fruticetis muscosis montanis montis Pico Suecia, in alt. 1720 m. s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ (in floribus) No. 27 116. SV; isotypus: Bp. 503114.

— — Prov. Oriente: Sierra Maestra, Pico Turquino, in silvis muscosis montano-subalpinis montis Pico Real, in alt. 1900 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 7. XII. 1969. (in fructibus).

Ilex moana Borhidi et Muñiz sp. nova (Fig. 6)

Frutex usque ad 3—4 m altus; rami vetustiores striati, glabri, dense foliosi, vetustiores pilosi, in sicco nigrescentes; folia 4—5 mm longe petiolata, plerumque orbicularia vel suborbicularia, vel late elliptica, 2—3 cm longa, 1,5—2,5 cm lata, apice obtusa vel rotundata et mucronulata, basi rotundata, utrinque glabra; nervo medio supra impresso et paullo pilosiusculo subtus prominulo et glabro; lateralibus subtus plerumque obsoletis vel vix conspicuis, margine integro, recurvo, antice plerumque 2—4-denticulato, subcoriacea. Inflorescentiae plerumque 3-florae, laterales vel axillares, 5—7 mm longe pedunculatae, pedunculis compressis pilosisque, bibracteatae, bracteae 0,5 mm longae, pedicelli 2—4 mm longi, pilosi, centrales lateralibus longiores. Flores laterales minores 5-meri, centrales 6-meri, majores, calyx 1—2 mm latus, calycis lobi inaequales, triangulari-ovati, ciliati, petala ovata, 2 mm longa; fructus ignotus.

Obs.: Ex affinitate *Ilicis Macfadyenii* (Walp.) Rehder, quae foliis ovatis, 3—7 cm longis, apice acuminatis et acutis clare diversa est.

Typus: Prov. Oriente; Region de Moa, Sierra de la Iberia, Bahia de Taco. Leg.: M. LOPEZ FIGUEIRAS UO 632 in LS sub nom. *I. Ekmaniana* et *I. Wrightii*. 11. IV. 1960. Isotypus: Bp. 503284.

— Oriente; Moa, Sierra de la Iberia, leg. M. LOPEZ FIGUEIRAS UO 630, 11. IV. 1960.

— — Oriente; Moa, Sierra de la Iberia supra pag. Santamaria in alt. approx. 700 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 23. III. 1970.

Fam.: Celastraceae

Maytenus buxifolia (A. Rich) Griseb.

- 1 a Folia elliptica, suborbicularia vel rariter late obovata, basi rotundata cordata vel obtusa 2
 b Folia obovata vel oblongo-obovata, basi cuneata 4
 2 a Folia flavescenti-viridia, orbicularia vel late obovata usque 1 cm longa, limbo concavo; fructus usque 5—6 mm longus ssp. 1. *cochlearifolia*



Fig. 6. Type specimen of *Ilex moana*, LS 632 UO

- b Folia pruinoso-glaucescientia vel obscure-viridia, elliptica, 1—3 cm longa,
limbo plano 3
- 3 a Folia 1—2 cm longa, fructus ovatus 7—11 mm longus
..... ssp. 2. **serpentini**

- b Folia 1.5—3.0 mm longa, fructus globosus, 4—7 mm longus
 ssp. 3. **cajalbanica**
- 4 a Folia 2.5—4.0 cm longa, latitudine 2—3-plo longiora, oblongo-obovata,
 basi longe angustata ssp. 4. **monticola**
- b Folia 1—3 cm longa, late obovata, latitudine 1—2-plo longiora
 ssp. 5. **buxifolia**

ssp. 1. **cochlearifolia** (Griseb.) Borhidi et Muñiz comb. et stat. nova;
 basionym: *Maytenus cochlearifolius* Griseb. in Cat. Plant. Cub. 1866. p. 53.
 typus: WRIGHT 2212.

Distributio: Prov. Oriente, in fruticetis aridis litorum meridionalium inter
 opp. Guantanamo et Maisi.

ssp. 2. **serpentini** Borhidi et Muñiz ssp. nova

A typo differt foliis oblongo-ellipticis, basi rotundatis, usque 2 cm longis, fructibus ovatis
 7—11 mm longis.

Typus: Prov. Oriente; region de Moa, in fruticetis serpentinosi ad Playa
 de Vaca pr. opp. Moa. Leg.: J. ACUÑA 11. IV. 1945. No. 12 540 in SV.

Distributio: Camagüey, Oriente: Sierra de Nipe, Sierra de Moa.

ssp. 3. **cajalbanica** Borhidi et Muñiz ssp. nova

A typo differt: foliis oblongo-ellipticis, basi rotundatis, 1,5—3,0 cm longis, fructibus globosis,
 4—7 mm longis.

Typus: Prov. Pinar del Rio, in fruticetis serpentinosi montis Cajalbana.
 Leg.: J. ACUÑA et HNO ALAIN 3. XII. 1949. No. 24 945 in SV.

Distributio: Prov. Pinar del Rio, Montes Cajalbanenses.

ssp. 4. **monticola** Borhidi et Muñiz ssp. nova

A typo differt foliis oblongo-obovatis, 2,5—4,0 cm longis, latitudine 2—3-plo longioribus,
 basi longe cuneatis.

Typus: Prov. Oriente: Sierra Maestra; Peladeros de Indio inter alt.
 900—1300 m. s. m. Leg.: M. LOPEZ FIGUEIRAS 27. XI. 1959. UO 372. LS.

Distributio: Prov. Oriente, pars montana montium Sierra Maestra.

ssp. 5. **buxifolia**

Distributio: in fruticetis siccis et litoralibus toti territorii Cubani excepto
 areae subspecierum vicariantium.

Fam.: Sapindaceae

Allophylus cubensis Borhidi et Muñiz sp. nova (Fig. 7)

Frutex usque 3—4 m altus. Ramuli glabri brunneo-striati, lenticellis densè obsiti.
 Folia composita, unifoliolata, 7—15 mm longe petiolata, petiolo apice articulado. Foliolum
 glabrum, oblongo-ellipticum vel spatulato-obovatum, 6—10 cm longum, 2—4 cm latum,

basi cuneatum, apice obtusum vel rotundatum, margine integrum, nervis lateralibus utrinque obsolete, vix conspicuis. Inflorescentia racemosa terminalis, 10 cm longa, 13–17-flora, pedicellis 5–7 mm longis. Fructus subglobosus, glaber 8–11 mm in diametro, basi filamentis siccis persistentibus. Flos nobis ignotus.

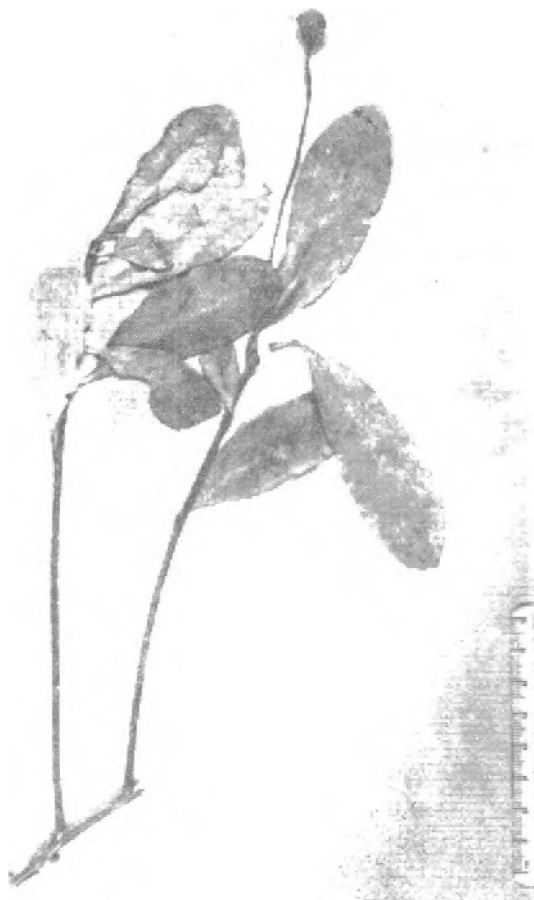


Fig. 7. *Allophylus cubensis*, SV. 27130, type specimen

Typus: Prov. Oriente, Sierra Maestra, in silvis fruticosis calcareis carsticis pr. pag. Matias, Finca Demajagua. Leg.: A. BORHIDI et O. MUÑIZ 22. X. 1969. SV 27 130; isotypus: in Bp. 503022.

Obs.: A omnibus aliis cubanis huius generis speciebus notis foliis unifoliolatis, nervis lateralibus obsolete statim discernenda.

Fam.: **Rhamnaceae****Reynosia mucronata** Griseb.**ssp. mucronata :**

Folia oblongo-obovata vel obtriangularia, basi longe angustata et obtusiuscula, 5—8 mm longa, 3—5 mm lata, apice spinoso-mucronata, mucrone reflexo. Typus: WRIGHT 2104.

ssp. nipensis Borhidi et Muñiz ssp. nova

Folia elliptica vel ovata, basi rotundata vel cordata, 6—10 mm longa, 4—7 mm lata, supra nitida, apice spinoso-mucronata, mucrone recto.

Typus: Prov. Oriente: Sierra de Nipe in fruticetis serpentinosis montis Pinal Colorado, Cayo Rey. Leg.: M. LOPEZ FIGUEIRAS 27. IV. 1957. No. 2864. SV.

Distributio: Oriente: Sierra de Nipe.

ssp. azulensis Borhidi et Muñiz ssp. nova

Folia orbicularia vel late obovata, convexa, basi rotundata vel cordata, 7—11 mm longa, 6—9 mm lata, apice spinoso-mucronata, mucrone plerumque recto; fructus 10—15 mm longus.

Typus: Prov. Oriente: Litus meridionale montium Baracoa; km 68 de la Via Azul. Leg.: HNO ALAIN et M. LOPEZ FIGUEIRAS 28. XII. 1959. ALAIN 6999. LS.

Distributio: Pars litoralis meridionali-orientalis provinciae Oriente inter opp. Guantanamo et Maisi.

Fam.: **Clusiaceae****Clusia Alainii** Borhidi sp. nova

Frutex vel arbor parva, 2—3 m alta; rami vetustiores teretes, striati, hornotinique glabri, nigrescentes in sicco, ad apicem dense foliigeri. Petiolum 3—5 mm longum, 2,5—4,0 mm latum, in sicco nigrum. Folia late obovata vel suborbicularia, 1—3,5 cm longa, 0,7—2,5 cm lata, antice subtruncata vel rotundata, basi sensim breviter cuneata vel obtusiuscula, supra flavescens punctata, nervis utrinque conspicuis et paulo prominulis, lateralibus sub angulo 70—75° abeuntibus, non anastomisantibus, folia subtus sparsim nigro-punctata, in sicco olivaceo-fusca vel nigrescentia margine revoluta, coriacea. Inflorescentia mascula brevis, usque 1,5 cm longa, foliis superioribus brevior, biflora; pedunculo usque 1 cm longo, pedicellis quadrangularibus, 3—5 mm longis, bractee 2, usque 3 mm longae, ovatae, acutae vel obtusae, nervo medio dorsali prominente; sepala 4, semiorbicularia, 4—5 mm longa, margine membranaceo; petala 4—6, obovata vel elliptica, 6—8 mm longa, stamina valde numerosa, receptaculo convexo inserta, basi connata. Flores feminei fructusque ignoti.

Typus: Prov. Oriente; Region de Toa, in silvis humidis montanis cacuminis montis Pico Galán, Sierra de Frijol, La Alegria; Leg.: HNO ALAIN No. 3767. I. I. 1954. LS.; isotypi: SV, Bp.

Obs.: Affinis est *C. moaënsis* Borhidi et Muñiz quae foliis oblongo-obovatis, majoribusque, nervis lateralibus inconspicuis distinguenda est.

Clusia moaënsis Borhidi et Muñiz sp. nova

Frutex 2–3 m altus; ramuli striati, cinereo-nigrescentes, puberuli vel glabrescentes; petiolus 3–6 mm longus, 2–3 mm latus, in sicco brunneo-purpurascens folia oblongo-ovata, 1,3–4,0 cm longa, 0,7–2,5 cm lata, apice rotundata, basi longe cuneata, supra punctis luteis prominentibus, subtus punctulis pallidis obsoletis vel paullo conspicuis; supra nervo medio impresso, subtus prominulo, lateralibus subtus inconspicuis vel obsoletis, nunquam prominulis, margine recurvo, coriacea; inflorescentia feminea terminalia, usque 3 cm longa, foliis apicalibus longiora, 2–3-flora; pedunculo quadrangulati, 5–8 mm longo, pedicellis purpurascens, quadrangulatis, 2–8 mm longis, bibracteatis, bractee late ovatae, acuminatae, apice obtusae, nervo medio dorsali prominulo, 1,5–2 mm longae, purpurascens; sepala 4–6, oblongo-ovata vel triangularia, exteriora 2–3 mm longa, 4 interiora 4–6 mm longa, purpurascens; petala non visa; fructus ovoideo-subglobosus, 0,9–1,4 cm longus, stigmata 4, apicalia, late triangulari-cycloidea, sese tangentia.

Typus: Prov. Oriente; Region de Moa, in fruticetis serpentinosis montanis supra "Aserrio de la Mina Delta" supra pag. La Melba. Alt. cca 500 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ, 15. II. 1970. No. 27 135 SV; isotypi: SV, Bp. 530287.

Fam.: **Myrtaceae****Psidium Acunae** Borhidi sp. nova

Frutex 1–2 m altus. Rami hornotini subteretes vel superne paullo compressi, mixto glanduloso-granulati, rubentes, breviter puberuli, vetustiores cinerascens cortice adhaerente. Folia 1–1,5 mm longe petiolata, orbicularia vel ovato-orbicularia, basi cordata vel subcordata, antice rotundata vel rariter emarginata, 0,6–2,0 cm longa, 0,7–2,0 cm lata, nervo medio supra inferne vix impresso, demum prominulo, sub apice obsolete applanato, sed non evanescente, subtus inferne prominente, supra dimidium evanescente, lateralibus utroque latere 3–4 sub angulo 60–65° abeuntibus, supra tenuiter impressis et vix conspicuis, subtus nullis, folia utrinque glandulis prominulis et transparentibus dense glanduloso-granulata, supra nitida et pallide viridia, subtus opaca et paullo brunescens, chartacea vel subpergamacea. Flores terminales vel axillares, solitarii; pedunculus 5–10 mm longus, subangulosus, glanduloso-granulatus, ad apicem pedunculi 2 bractee minutae caducae. Alabastra (sine ovario) subglobosa, minute apiculata, 4 mm longa. Calycis tubus breviter obconicus, supra ovarium non productus, lobi 4, subinaequales, 1 mm longi, obtusi vel acuti. Petala alba subinaequalia, spathulato-rhomboido-ovata, 4–5 mm longa. Filamenta inaequalia, 3–4 mm longa, antherae subquadratae. Stylus 4 mm longus, glanduloso-granulatus, suberectus, stigma planum triangulare, stylo summo paullo crassius. Ovarium 2-loculare. Baccae flavo-brunnescentes, sphaeroideae, calycis limbo coronatae, glabrae, minute glanduloso-punctatae, 7–8 mm in diametro, 1–2-spermae. Semina anguloso-ovata vel rhombiformia, 3 mm in diam.; testa exterior dura nitida, intermedia durissima, cornea, in sinum embryonis intrans, intima embryonem circumdans, membranacea.

Typus: Prov. Pinar del Rio; Sierra de los Organos, in saxosis calcareis montis Pan de Guajaibón in alt. 750 m s. m. Leg.: HNO ALAIN 6782. 2. V. 1959. sub nom. *P. vicentinum* Urb. LS; isotypus: LS.

— — Ibidem J. ACUÑA et HNO ALAIN 2988 SV; ACUÑA No. 18 517 SV.

Obs.: Affine ex *P. vicentini* Urb., quod foliis basi rotundatis vel truncatis, 2–3 cm longis, nervis lateralibus utrinque prominentibus (atque floribus fructibusque?) abunde diversum est.

Fam.: Melastomataceae

Calycogonium Susannae Borhidi sp. nova

Frutex 1–2 m alta; rami vetustiores albicanti vel brunneo-lepidoti, hornotini lepidibus ferrugineis minutis variae formatis adpressis dense obsiti. Folia petiolis 4–7 mm longis, 1 mm crassis supra anguste sulcatis, elliptica v. elliptico-oblonga v. obovato-elliptica, 2,5–5,5 cm longa, 1–2 cm lata, basi cuneata vel sensim angustata, in petiolum contracta, apice rotundata vel saepe emarginata, 3–5-nervia, nervis apice conjunctis, nervo medio et 2 lateralibus interioribus supra impressis, subtus crassiuscule prominentibus, nervis marginalibus transversalibusque sub angulo 70° abeuntibus, 1,5–2,5 mm inter sese distantibus, supra parum conspicuis et impressis, subtus bene conspicuis et tenuiter vel vix prominulis, margine integro, paulo recurvo, supra nitida, obscure viridia, subtus opaca, ferrugineo-flavida, lepidibus orbicularibus brevissime radiatis arcte adpressis tomentulosa, subcoriacea. Flores solitarii terminales in apice ramorum, sessiles v. subsessiles (pedunculis 1–2 mm longis), ebracteati; calyx ferrugineo- vel brunneo-lepidotus, tubo campanulato, 4–5 mm longo, 4-angularis, calycis lobi 4, triangulares, acuti, 0,5 mm longi, dorso sub apice in appendices subteretes, conicas 1–2 mm longas excurrentes; petala purpurea v. rosea, usque 3–4 mm longa, ovata, apice rotundata; fructus juvenilis 4-costatus.

Typus: Prov. Oriente, Region de Moa; in silvis saxosis serpentinosi reservationis Cupeyal del Norte, alt. 800 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 10. II. 1970. No. 27 098 SV; isotypus: Bp. 503301.

— — Prov. Oriente, Region de Moa; Sierra de la Iberia in fruticetis serpentinosi montanis alt. 700 m s. m. supra pag. Santamaria. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ, 23. III. 1970.

Obs.: Ex affinitate *C. Grisebachii* et *C. cristalensis*, qua foliis obtusis vel acuminatis, calycis lobis linearibus, multo longioribus clare differunt.

In honorem SUSANNAE BORHIDI e genere THURY mulieris atque in botanica collaborantis meritissimae meae dedicavi.

Calycogonium rosmarinifolium Griseb.

- 1 a Folia linearia, 1–3 mm lata, pedunculo tenui, 5–12 mm longo, fructus nutansssp. 1. moanum
 b Folia lineari-elliptica vel elliptico-oblonga, vel oblongo-lanceolata, 3–7 mm lata, pedunculo 0–5 mm longo, fructus sessilis vel erectus 2
 2 a Folia 1,5–4,5 cm longa, flores fructusque usque 5 mm longe pedunculati ssp. 2. rosmarinifolium
 b Folia 1–2 cm longa, flores fructusque sessiles ssp. 3. brachyphyllum

ssp. 1. moanum Borhidi et Muñiz sp. nova

Folia anguste linearia, 1,5–4,0 cm longa, 1–3 mm lata, supra punctis prominentibus, nervis lateralibus paulo impressis, subtus conspicuis, margine valde revoluti; pedunculus tenuis, flexibilis, nutans, 5–12 mm longus, bractae 2, lineares, 2 mm longae, caducae, pedicelli 0,5–1,0 mm longi.

Typus: Prov. Oriente; Region de Moa, Mina Johnson. Leg.: HNO LEON 23 198. LS.

Distributio: Prov. Oriente: Sierra de Moa.

ssp. 2. *rosmarinifolium* :

Folia lineari-lanceolata vel lineari-elliptica, 1,5–4,5 cm longa, 3–6 mm lata, obtusa vel paullo mucronata, pedunculus 1–5 mm longus, erectus, bractee lanceolatae, 1–1,5 mm longae, caducae. Typus: WRIGHT 2480.

Distributio: Prov. Oriente: Sierra de Nipe.

ssp. 3. *brachyphyllum* Borhidi et Muñiz ssp. nova

Folia plerumque trinervia, oblongo-lanceolata vel oblanceolata, 1–2 cm longa, 4–7 mm lata, flores fructusque sessiles vel subsessiles.

Typus: Prov. Oriente: Sierra de Cristal, inter pag. Los Mulos et Corea.
Leg.: M. LOPEZ FIGUEIRAS 288. LS.

Distributio: Prov. Oriente: Sierra de Nipe: Loma Mensura, Sierra de Cristal, Sierra de Micara, region de Toa.

Ossaea Vazquezii Borhidi et Muñiz sp. nova

(Syn.: *Ossaea nipensis* Alain in Fl. de Cuba IV.: 55, 1957 non Britt. et Wils.)

Frutex usque 2 m altus; ramuli petiolique ferrugineo-lepidoti; folia 3–5 mm longe petiolata, ovata vel elliptica, late ovata vel subrotundata, 1,5–3,0 cm longa et 0,8–2,0 cm lata, apice obtusa vel acuta et breviter acuminata, basi obtusa, rotundata vel subcordata, triplinervia, supra nervis primariis impressis, subtus vix prominulis secundariisque conspicuis, glabris, supra parum nitida, subtus opaca, ad nervos ferrugineo-lepidota; flores axillares, sessiles vel subsessiles, solitarii vel in inflorescentiis paucifloris; calyx 2 mm longus et usque 1 mm in diametro, ferrugineo-lepidotus; calycis lobi 4, diminuti, triangulares, acuti; petala oblongo-triangularia, acuta, 1,0–1,5 mm longa; fructus subglobosus, 1,5–2,0 mm in diametro.

Typus: Prov. Oriente; Region de Moa, Sierra de la Iberia supra Bahia de Taco. Leg.: M. LOPEZ FIGUEIRAS 25. VII. 1960. 2230. SV; isotypus: LS,
— — Ibidem M. LOPEZ FIGUEIRAS 11. IV. 1960, No. 625, 702, 704.
709; A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 23. III. 1970; Sierra Azul: Quibijan Baracoa. Leg. HNO ALAIN et M. LOPEZ FIGUEIRAS 11. I. 1960. 7292.

Obs.: This species was confused with the specimens of the *O. nipensis* Britt. et Wils. because of the incomplete description published by BRITTON et WILSON. *Ossaea Vazquezii* is an indigenous species of the Moa and Baracoa Regions but *O. nipensis* can be found only in the Nipe Mountains.

Hanc speciem nominavimus in honorem cli. S. VAZQUEZ, qui in investigationibus geobotanicis atque collectionibus floristicis nostris diligentissime collaboravit.

Ossaea nipensis Britt. et Wils.

Adde ad descriptionem: calycis tubus 1–1,5 mm longus, usque 1 mm latus, albo-lepidotus atque setulis basi incrassatis pilisque glandulosis laxe dispositis; petala oblongo-ovata vel oblongo-elliptica, 2–2,5 mm longa, tubo calycis longiora, stylus 3–4 mm longus, longe exsertus.

Distributio: Prov. Oriente: Sierra de Nipe.

Specimina investigata: ALAIN 7854; ALAIN 8019; ALAIN 8022.

var. *longipetiolata* Borhidi et Muñiz var. nova

A typo differt: petiolis 5—10 mm longis, lamina foliorum usque 4 cm elongata basi longe cuneata, in petiolum sensim contracta.

Typus: Prov. Oriente: Sierra de Nipe, in silvis humidis prope fontem rivi Arroyo Naranjo, Mayari. Leg.: HNO ALAIN, J. ACUÑA et RAMOS 20. IV. 1960. ALAIN 7839. SV; isotypus: LS.

Ossaea haracoënsis Borhidi et Muñiz sp. nova

Frutex 1—2 m altus; ramuli pilosi et pilis stellatis ferrugineo-pubescentes; folia ovata, late elliptica vel orbicularia, 1—2 cm longa, apice rotundata et emarginata, basi obtusa, rotundata vel subcordata, triplinervia cum 2 nervis marginalibus, coriacea; supra trichomis brevissimis basi incrassatis sparse disposita, subtus sine trichomis, ad nervos lepidoto-pulveruleña, margine crenulata, denticulis parvis recurvatis et oppressis, supra nervis primariis conspicue, marginalibus paulo impressis, subtus prominentibus; flores 1—2, axillares, sessiles vel subsessiles, breviter pedunculati; calyx globosus, dense hirsuto-setulosus, 2—3 mm in diametro; calycis lobi 4, triangulares, 1,5—2,5 mm longi; fructus globosus, 4—5 mm in diam. profunde glaucus, violaceo-setulosus.

Obs.: Habitu, forma foliorum *O. ellipticae* Alain affinis, quae foliis subtus emergentibus conicis praesentibus, ramulis tuberculis subulatis obtectis, floribus terminalibus bene differt.

Typus: Prov. Oriente; Region de Moa, in fruticetis serpentinosi montanis supra Aserrio de la Mina Delta, La Melba, alt. 500 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 18. II. 1970. 27 113. SV; isotypus: Bp. 503026.

— — Baracoa; Sierra Azul, 500 m s. m. ALAIN 7322. (sterilis).

var. *ovalifolia* Borhidi et Muñiz var. nova

A typo differt foliis ovalibus majoribusque, pilis marginalibus tenuibus et longioribus.

Typus: Prov. Oriente; Baracoa; in silvis humidis altoherbosis pr. Quibijan. Leg.: HNO ALAIN et M. LOPEZ FIGUEIRAS, 1. I. 1960. ALAIN 7117. LS.

Ossaea pseudopinetorum Borhidi et Muñiz sp. nova

Frutex 1—2 m altus; ramuli pilis plumosis albicantibus, trichomisque subulatis, violaceis, basi incrassatis, usque 1—1,5 mm longis dense obtecti; folia ovata vel ovato-lanceolata, 3—4,5 cm longa, 1,2—1,8 cm lata, apice angustata vel acuminata, acuta et plerumque mucronata, basi in petiolum sensim contracta, triplinervia, supra glabra, subtus lepidibus pilisque stellulatis et ad nervos conicis violaceis apicem versus subulatis disposita, margine revoluta, subcrenulata, coriacea; flores 1—2, sessiles in axillis superioribus, breviter pedunculatis, pedunculis crassis usque 4 mm longis; hypanthium globosum, 4—5 mm in diam., trichomis longis, subulatis, atrovioleaceis dense setosum; calycis lobi 4, triangulari-lanceolati, apiculati et acuti, 3—4 mm longi, intus albo-pilosi. Caetera incognita.

Typus: Prov. Oriente; Region de Moa; in pinetis ad rivum Toa in Reservatione Cupeyal del Norte, alt. 450 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 9. II. 1970. No. 27 096 SV; isotypus: Bp. 503113.

Obs.: A specie proxima *O. pinetorum* Alain foliis supra glabris, atque ramulis, petiolis foliisque subtus longe violaceo-setulosis optime diversa.

Fam.: Theophrastaceae

Jacquinia Acunana Borhidi et Muñiz sp. nova (Fig. 8)

Frutex 1–1,5 m altus; ramuli teretes, adpresse lepidoti, ferruginei vel brunnei in sicco, dichotome ramosi; petiolus 2–4 mm longus et 2 mm latus; folia ad apicem ramorum approximata, late obovata, suborbicularia vel orbicularia, 1,8–3,5 cm longa, 1,5–3 cm lata, basi cuneata vel acuta, antice rotundata vel subtruncata, plerumque emarginata, margine incrassata, vix revoluta, crasse et rigide coriacea; supra nervis conspicuis vel obsolete prominulis triplinervia, subtus dense venulosa, venis prominentibus undulatis, supra non, subtus diminute lepidota. Inflorescentiae umbelliformes, terminales vel axillares, in axillis superioribus sessiles vel brevi-pedunculatae (usque 5 mm), 2–5-florae, pedicellis 7–10 mm longis, quadrangularibus vel 4-costatis, superne incrassatis, rugosis, glabris; sepala breviter orbicularia vel suborbicularia, rugosa, glabra, margine integra, 2–3 mm longa; fructus ovato-globosus, in apiculum conicum, 1,5 mm longum antice contractus, 10–12 mm longus, 8–10 mm in diametro.

Typus: Prov. Oriente; Sierra de Moa; in fruticetis serpentinosi supra Aserrio de la Mina Delta in alt. 500 m s. m. La Melba. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 18. II. 1970. No. 27 115 SV; isotypus: Bp. 503285.

— — Sierra de la Iberia, in fruticetis serpentinosi montanis supra pag. Santamaria, in alt. 600 m s. m. 23. III. 1970. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ.

Obs.: Ex affinitate *J. obovatae* Urb., quae foliis 8–15 mm longis et 6–10 mm latis, pedicellis 2–3 mm longis facilliter diagnoscenda est.

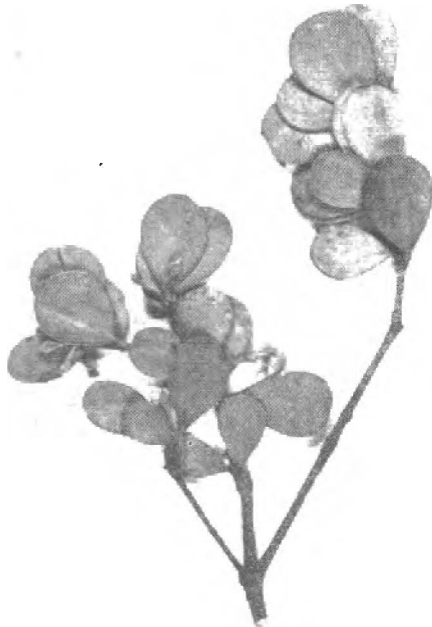


Fig. 8. Type specimen of *Jacquinia Acunana*, SV. 27115

Fam.: Apocynaceae

Neobraccia Martiana Borhidi et Muñiz sp. nova

Frutex vel arbor parva, 2–4 m alta; ramuli puberuli, folia 2–5 mm longe petiolata, petiolo puberulo, late elliptica vel obovata, 3–5 cm longa, 1,5–3 cm lata, apice rotundata et emarginata, rariter mucronulata, basi breviter angustata vel rotundata, paullo asymmetrica, supra pilosiuscula et nitidula, subtus dense cano-pubescentia, nervis prominentibus, margine plana vel recurva, subcoriacea. Inflorescentiae racemoso-corymbosae, laterales vel terminales, posteriores anterioribus breviores; terminales 3–4 cm, laterales 4–6 cm longae, dense et adpresse albo-pubescentes; pedunculus crassus, usque 2 mm in diam., 2–20 mm longus, pedicelli 7–15 mm longi, bractee lineares, 2–3 mm longae; calycis lobi triangulares vel late ovati, acuti, 2–3 mm longi, adpresse albo-puberuli; corolla alba vel pallide rosea, 15–18 mm longa, extus puberula, tubo 2–3 mm longo, fauce valde dilatata, 5–6 mm longa, lobulis obovatis 7–9 mm longis. Folliculi nobis ignoti.

Obs.: Ex affinitate *Neobracciae bahamensis* (Britt.) Britt., quae foliis anguste- vel oblongo ellipticis supra glabrescentibus et nitidis, inflorescentia umbellata vel subumbellata, lobis calycis anguste triangularibus differt.

Typus: Prov. Oriente: Siboney, in scopulis litoralibus calcareis ad viam versus El Sardinero. Leg. M. LOPEZ FIGUEIRAS 26. VIII. 1951. LS.

var. *robusta* Borhidi et Muñiz var. nova

A typo differt foliis majoribus 4–7 cm longis, 2,5–3,5 cm latis, inflorescentia terminali 4–6 cm longa, lateralibus 6–12 cm longis, corolla 17–22 mm longa.

Typus: Prov. Oriente: in scopulis calcareis pr. praed. Justici ad pag. Siboney. Leg.: HNOS CLEMENTE et CHRYSOGONE VIII. 1949. LS.

Neobraccia bahamensis (Britt.) Britt.

Distributio: Prov. Matanzas: Varadero; prov. Las Villas: Casilda; Isla de Pinos: Punta del Este; Insulae Bahamenses. Specimina e Provincia Oriente collecta cum *Neobraccia Martiana* congruunt.

Neobraccia Susannina Borhidi sp. nova (Fig. 9)

Frutex vel arbor parva, 2–4 m alta. Rami vetustiores teretes, glabrescentes, brunnescentes in sicco, hornotini paullo angulati, puberuli. Folia 2–5 mm longe petiolata, petiolis dense puberulis, late elliptica, rhombea vel ovata, 2–3,5 (–5) cm longa, 1–2 (–3) cm lata, apice acuta vel breviter acuminata, basi cuneata, utrinque reticulato-venosa, supra nervis impressis, subtus crassiuscule prominentibus, lateralibus utroque latere 8–10 anastomisantibus, rigidissime et crasse coriacea, margine valde revoluta, supra ± nitentia et puberula, subtus pallida et supra nervos densissime pubescentia. Inflorescentia terminalis corymbosa, 3–4 cm longa, 5–12-flora, pedunculus 5–7 mm longus, pedicellis 5–8 mm longis, tenuibus, 0,5 mm in diam., puberulis, bracteis linearibus vel lineari-lanceolatis, 2–3 mm longis. Lobuli calycis anguste triangulares, 2–3 mm longi, apice obtusi, hirsuto-puberuli. Corolla alba 1–1,5 cm longa, tubus corollae 3–4 mm longus, extus minute puberulus, fauce 3–4 mm longa, lobuli oblongo-ovati, 5–6 mm longi, margine pilosi. Folliculi ignoti.

Obs.: Ex affinitate *Neobracciae Howardii* Woods., quae foliis 5–7 cm longis, apice obtusis vel rotundatis, floribus majoribus bene differt.

Typus: Prov. Oriente; Sierra Maestra, in silvis fruticosis aridis, calcareis supra Finca Demajagua pr. pag. Matias, alt. 450 m s. m. Leg.: A. BORHIDI et O. MUÑIZ. 22. X. 1969. No. 27 095 SV; isotypi: SV 27128; Bp. 503281;

— — Prov. Oriente; Sierra Maestra, in silvis fruticosis saxosis calcareis "mogotis" supra pag. La Tabla. Leg.: A. BORHIDI et O. MUÑIZ, 5. II. 1970.



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Fig. 9. *Neobracea Susannina*, SV. 27095, type specimen

Fam.: Boraginaceae

Cordia Duartei Borhidi et Muñiz sp. nova

Frutex 1–3 m altus; rami vetustiores teretes, strigosi, patenter setoso-villosuli, hornotini obscure quadrangulares indumento vetustiorum similes; folia 5–15 mm longe petiolata, petiolis villosis, ovata, oblongo-ovata vel oblongo-elliptica, 5–13 cm longa, 1,5–5,5 cm lata, apice acuta vel acuminata, basi obtusa vel plerumque in petiolum angustata, margine plana vel recurva folis serrata vel dentato-serrata, dentibus acutis, supra setulis longis basi bulbosis scabra, bullata et areolata, subtus ad nervos prominentes setulis longis, basi incrassatis villosa; capitulis terminalibus 3–8 cm longe pedunculatis; pedunculis quadrangularibus, sulcatis, setoso-villosis, multifloris; flores sessiles; calyx non striatus, 8–9 mm longus, obconicus, setulis longis villosis vel hirsutis, lobi calycis subaequales, 2 majores, triangulari-subulati, 2–3 mm longi, hirsuti vel villosi. Corolla alba, 12–14 mm longa, tubo cylindraceo, 6–7 mm longo, calyce ± aequilongo, lobis obovato-orbicularibus, apice truncatis v. emarginatis, 6–7 mm longis tubo ± aequilongo; filamenta ad faucem corollae inserta. Drupa 4 mm longa, 2,5 mm in diam., apice acuta; stylus filiformis, 1,5–2 mm longus.

Obs.: Ex affinitate *Cordiae baracoënsis* Urb., quae foliis utrinque breviter setoso-puberulis, minoribus, capitulis breviter pedunculatis, inflorescentia breviter setosa clare differt.

Hanc speciem in honorem cli. PEDRO PABLO DUARTE, professoris ichtyologiae et zoologiae marinae meritissimi, atque in investigationibus bryoflorae Cubanae diligentissimi dedicavimus.

Typus: Prov. Oriente; Region de Moa, Sierra de la Iberia, in pinetis prope pag. Santamaria. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ, 22. III. 1970. SV; isotypus: Bp. 503283;

Sierra de la Iberia, UO 687; UO 2188; Yamanigüey UO 743;

Baracoa: Quibijan, ALAIN 7156; La Ermita, ALAIN 7595.

Cordia toaënsis Borhidi et Muñiz sp. nova

Frutex usque 2–3 m altus; ramuli striati, angulati, hispido-puberuli; folia 4–8 mm longe petiolata, obovata, oblongo-obovata vel oblongo-elliptica, 4–6,5 cm longa, 1,0–2,5 cm lata, apice acuta vel obtusa v. rotundata, plerumque mucronata, basi sensim angustata, in petiolum contracta, supra strigillosa et nitida, subtus scaberrime pubescens, margine revoluta, integra vel antice irregulariter denticulata, supra nervis impressis, subtus prominentibus; capitulis terminalibus globosis, 1–2 cm in diam., multifloris, 6–9 cm longe pedunculatis, pedunculis scabroso-puberulis; calyx cylindraceus vel conicus, 5–7 mm longus, dense adpresse albo-sericeus vel hirsutus; lobi calycis 5, breviter triangulares vel ovati appendice lineari 1,5–2,5 mm longo, tubo dimidio brevior. Corolla alba, 1–1,5 cm longa, lobis obovatis, tubo duplo brevioribus.

Obs.: Ex affinitate *Cordiae Acunae* (Mold.) Alain, quae capitulis, calycibus, corollis minoribus, processo lobis calycis ± duplo longiore bene distinguenda est.

Typus: Prov. Oriente; Region de Toa; in pinetis ad rivum Toa in Reservation Cupeyal del Norte, alt. 500 m s. m.. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ, 9. II. 1970. SV; isotypus: Bp. 503028.

var. *toaënsis*:

Foliis oblongo-ellipticis, margine antice dentatis, capitulis minoribus, 1–1,4 cm in diametro.

var. *integerrima* Borhidi et Muñiz var. nova

A typi differt: foliis obovatis vel oblongo-obovatis, margine integris, capitulis majoribus, 1,4–1,8 cm in diam.

Typus: Prov. Oriente: Region de Toa; in pinetis montis Peña Prieta, La Magdalena, alt. 700 m s. m. Leg.: ALAIN 3146. LS. 22. VII. 1953.

***Cordia Utermarkiana* Borhidi sp. nova**

Frutex usque 2 m altus; rami hornotini lepidibus minutis furfuraceis et pilis brevibus adpressis, dense obsiti; folia 5–12 mm longe petiolata, petiolis rufescentibus et puberulis, oblongo-ovata vel elliptica, basi cuneata et in petiolum contracta, antice sensim angustata, 5–12 cm longa, 2–5,5 cm lata, margine plana et integra, vel irregulariter brevissime et acute denticulata, supra glabra et opaca, nervis paullo impressis, subtus supra nervos rufescentis et sparse pilosa, nervis prominulis reticulatis, chartacea vel subcoriacea. Inflorescentia capitulum hemisphaericum, solitarium, terminale, 3–7 cm longe pedunculatum; pedunculo furfuraceo-puberulo, apice valde incrassato, receptaculiforme dilatato; calyx infundibuliformis, 6–7 mm longus, lobulis triangularibus, acutis, 1,5–2 mm longis, rufescens et albo-pilosus. Corolla 12–18 mm longa, tubo cylindraco-infundibuliformi, 8–12 mm longo, calycem paullo superante, lobis oblongo-ovatis, 5–7 mm longis, antice rotundatis; filamenta 2,3–2,5 mm longa, medio tubi corollae, antherae ad faucem insertae.

Obs.: Affinis *Cordiae pedunculosae* Wr., quae sine indumento furfuraceo, capitulis sphaericis, corolla minore, lobulis 1,5–2 mm longis, filamentis ad faucem corollae insertis, antheris exsertis valde discrepat.

Hanc speciem in honorem familiae UTERMARK, in rebus meis generositer et innocentissime adjuvantis dedicavi.

Typus: Prov. Oriente; Region de Moa: Punta Gorda—Cayoguan. Leg.: HNOS LEON, MARIE-VICTORIN et CLEMENTE, No. 20 939. LS.

Specimina investigata: Region de Moa: LEON et CLEMENTE 5483; 20 187; 23 033; 23 037; J. ACUÑA. 12 682; 12 683; 12 685; BUCHER 159; CLEMENTE 4981; 3570; 4358; LEON, MARIE-VICTORIN et CLEMENTE 20 728; LEON et CLEMENTE 20 186; MARIE-VICTORIN, ALAIN et CLEMENTE 21 568.

Fam.: Bignoniaceae***Tabebuia candicans* Borhidi et Muñiz sp. nova (Fig. 10)**

Frutex vel arbor parva usque 4–6 m alta; rami vetustiores teretes, glabri, hornotini sicut petioli lepidibus albis adpressis et longioribus peltatim stipitatis brunnescentibus floccosi; folia petiolis 3–6,5 cm longis, biangularibus, superne sulcatis subtus convexis, 1,5–3 mm crassis; foliola 5, rariter 3–4, petiolulo intermedio 7–12 mm longo, deltoidea, oblanceolata vel obovata, basi cuneata, infima in petiolum contracta, antice obtusa vel rotundata, apice emarginata; foliolium terminale 5–13 cm longum, 2,5–6 cm latum, caetera sensim minora, basalina subsessilia, subsymmetrica, 2–8 cm longa, 1,3–4,5 cm lata, nervis lateraliibus utroque latere 8–11 sub angulo 60–80° abeuntibus, sicut medio supra impressis, subtus bene prominentibus et reticulato anastomisantibus, supra albo-canescencia, tenuiter ruguloso-reticulata et dense albo-lepidota cum lepidibus brunneis intermixtis, subtus densissime albo-lepidota, ad nervos dense brunneo-furfuracea et breviter albo-pilosa, margine plana vel saepe revoluta, coriacea. Inflorescentia terminalis, sessilis, corymbosa, 2–5-flora, floribus usque 4,5 cm longis, sicut calyx pube furfuracea et lepidibus stipitatis composita, brunneo-nigrescente floccosa et pilis albis sparse pilosa; bractae lineares, 3–5 mm longae, pedicelli 2–6 mm longi; calyx subcylindraco 10 mm longus, in statu compresso 5 mm latus, lobi tubo duplo brevioribus. Corolla 4 cm longa, roseo-violacea. Fructus nobis ignotus.

Obs.: Forma, textura foliorum *T. cuneifoliae* Urb. affinis, a qua indumento triplice: foliis et inflorescentiis lepidibus adpressis albis, atque stipitatis furfuraceis et pilis albis obtectis atque floribus fructibusque(?) differt.

Typus: Prov. Oriente; Sierra Maestra, in silvis carsticis calcareis “mogotitis” supra Finca Demajagua pr. pag. Matias, in alt. 450 m s. m. Leg.: A. BORHIDI et O. MUÑIZ 22. X. 1969. No. 27 129 SV; isotypus: Bp. 503024.

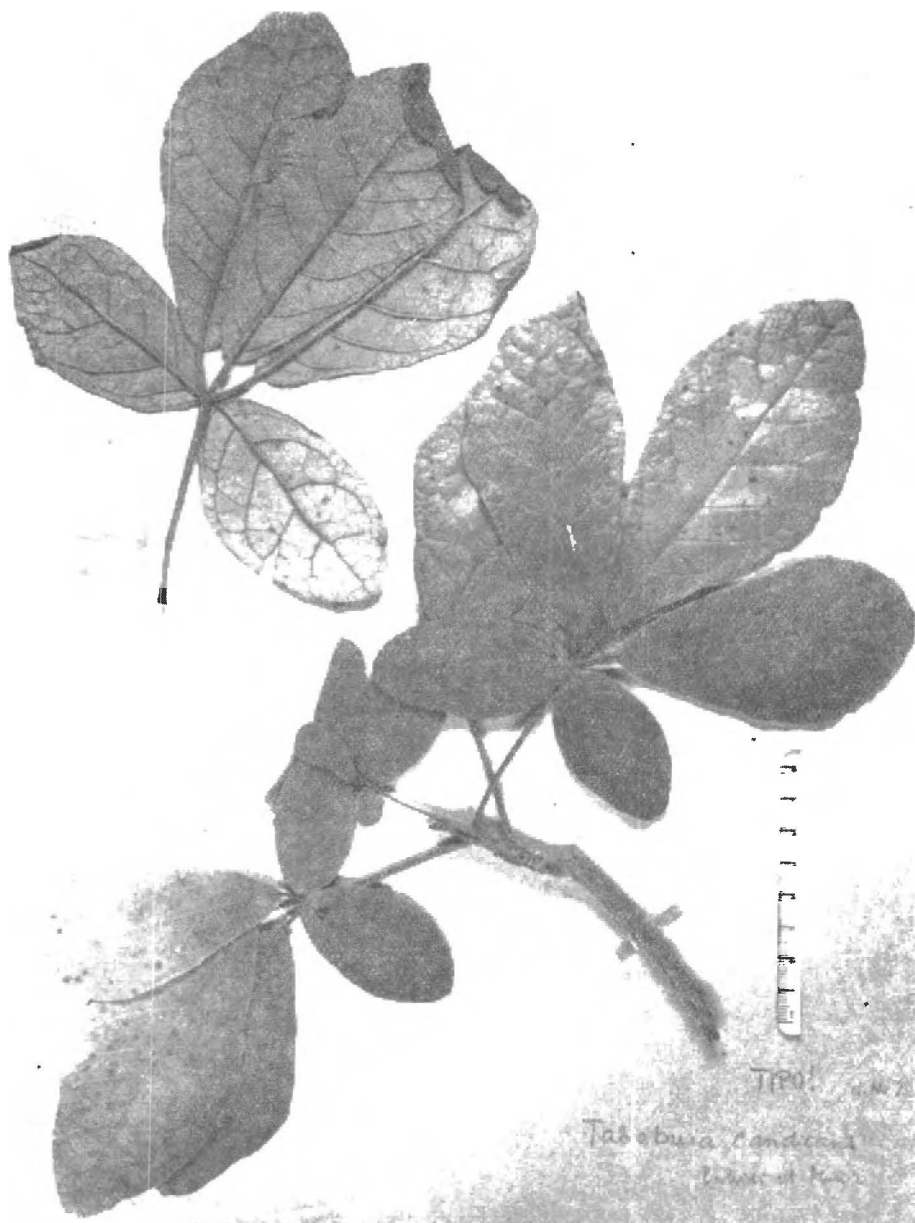


Fig. 10. Type specimen of *Tabebuia candicans*, SV. 27129 B

— — Prov. Oriente; Sierra Maestra, in silvis carsticis calcareis “mogotis” supra pag. La Tabla, in alt. 500 m s. m. Leg.: A. BORHIDI et O. MUÑIZ 5. II. 1970.

***Tabebuia hypoleuca* Griseb. ssp. *nivea* Borhidi et Muñiz ssp. nova (Fig. 11)**

Frutex vel arbor parva, 2–4 m alta; rami hornotini vetustioresque dense albo-lepidoti, in sicco plicato striati, lenticellis ovali-orbicularibus obsiti. Folia petiolis 8–15 mm longis, teretibus, supra \pm planis, 1,3–1,8 mm crassis, sicut rami albo-lepidotis; foliola solitaria, oblongo-elliptica v. oblongo-ovata, antice rotundata, saepe paullo incisa et mucronulata,



Fig. 11. *Tabebuia hypoleuca* ssp. *nivea*, SV. 27132, type specimen

basi subcordata, 3–9 cm longa, 1,3–4 cm lata, nervo medio supra in sulco prominente, lateralibus utroque latere 6–9, parum impressis, subtus omnibus bene prominentibus, brunneo-flavescentibus et reticulato-anastomisantibus, margine integra, utrinque dense albo-lepidota, chartacea vel subcoriacea. Inflorescentiae terminales 1–3-florae, vel axillares uniflorae; pedunculus 8–10 mm longus, 2 mm crassus, bracteae lineares, cc. 1 mm longae, pedicelli supra bracteas 8–10 mm longi; calyx anguste campanulatus, 10 mm longus, lobis 2 mm longis, sicut pedicelli albo-lepidotis. Capsula quadrangulata, longe acuminata, 8–13 cm longa, 7–9 mm lata, albo-lepidota; valvae 3-nerviae, nervis valde prominentibus. Flore nobis ignotus.

Obs.: Forma folioli, capsulaeque *Tabebuiæ hypoleucæ* Wr. affinis, a qua calyce, capsula et foliolis utrinque dense albo-lepidotis differt.



Fig. 12. Type specimen of *Exostema lancifolium*, SV. 26830

obovatus, 3–4 mm longus, lobi triangulari-lanceolati, acuti, 0,7–0,8 mm longi, non sinuati. Corolla extus intusque obscure purpurea, tubo corollae cylindraco, 0,8–1,0 cm longo, 1 mm in diam.; lobi corollae 4 vel 5, oblongo-elliptici, concavi, 0,8–1,0 cm longi, tubo aequilongi. Stamina 4–5, filamenta glabra stylus staminibus aequilongus, filiformis, apice breviter bifidus. Fructus obovatus, 1,0–1,2 cm longus, glaber.

Typus: Prov. Oriente; Region de Moa, in fruticetis serpentinosis ad Mina Potosi, supra Yamanigüey. Leg.: V. SAMEK V. 1968. No. 26 830 SV.

Obs.: Affine *E. purpureo* Griseb., quod foliis ellipticis vel ovatis, 3,5–6 cm longis, 1,5–3 cm latis, nervo medio antice utrinque evanescente, lobis calycis obtusis, sinuato-distantibus, corolla intus rosea optime diversa est.

***Schmidtottia scabra* Borhidi et. Acuña sp. nova (Fig 13)**

Frutex; rami vetustiores teretes, hornotini \pm quadranguli, in sicco plicato-striati, dense et brevissime puberuli, resina obducti, internodiis 1,5–5,5 longis. Stipularum vagina antice truncata, puberula, resinosa usque 1 mm longa. Folia opposita, sessilia v. subsessilia, orbicularia vel breviter ovata, basi subcordata v. cordata, antice rotundata vel subtruncata, 2–3,5 cm longa, 1,5–2,5 cm lata, nervo medio supra impresso, subtus prominulo, ad apicem versus utrinque applanato vel evanescente, lateralibus supra obsoletis, subtus inconspicuis, margine revoluta, coriacea, supra opaca et pilis perbrevisibus densissime scabra, subtus flavicantia vel brunnescentia, dense brevissimeque scabriusculo-puberula. Inflorescentiae terminales, subcorymbosae, multiflorae, 4–5 cm longae, bractee euphyллоideae orbiculares, 1–1,2 cm longae, pedunculo quadrangulare, versus apicem incrassato, 0,8–2,0 cm longo, puberulo, 2–3-floro; bractee ad vaginam stipulaceam reductae, persistentes v. in fructu deciduae. Pedicelli tenues, 0,5 mm crassi, 4–8 mm longi, brevissime scaberuli; calyx perbrevisiter scabriusculus et patenti pilosus, tubus turbinatus, 3–4 mm longus, lobi concavi, explanati,



Fig. 13. Type specimen of *Schmidtottia scabra*, SV. 26828

lineari-lanceolati, apice obtusi, 6–8 mm longi. Corolla secundum exemplum siccum verisimiliter flava v. flavo-rosea, 1,8–2 cm longa, tubus in alabastro cylindraceus, superne sensim ampliatus, 5-angulatus, extrinsecus brevissime pilosus, intus glaber; lobi late triangulares, 1,5 mm longi et 3 mm lati, tubo pluries breviores. Stamina basi 1 mm longe coalita, filamenta inferne patenti-pilosula, superne glabriuscula, antherae inter loculos supra basim affixae, lineares, apice obtusae, 7–8 mm longae. Stylus integer, brevissime puberulus. Capsula oblongo-obovata, basi acuta, brevissime patenti-pilosa, 7–9 mm longa, 3 mm lata.

Obs.: Verisimiliter affinis *S. nitenti* (Britt.) Urb. quae foliis majoribus, supra nitidis, utrinque glabris, lobis calycinis 8–11 mm longis, corolla campanulata, lobis rotundis diversa est.

Typus: Prov. Oriente; Region de Moa, in fruticetis serpentinosi ad Mina Potosi supra Yamanigüey. Leg.: V. SAMEK in V. 1968. No. 26 828 SV.

Rondeletia Vazquezii Borhidi et Muñiz sp. nova

Frutex 1–2 m altus; ramuli vetustiores teretes, pilosuli, hornotini albicante strigosi. Stipulae interpetiolares late triangulares, 2 mm longae, acutae, apiculatae, apice mucronatae, basi 2 mm latae, extrinsecus dense albo-strigosae, pilis infrastipularibus minutis; folia petiolo 2–4 mm longo, albo-strigoso, ovata vel ovato-elliptica, 1–3 cm longa, 0,7–2,0 cm lata, basi rotundata vel subcordata, rariter paullo asymmetrica, apice obtusa v. rotundata, mucronulata, nervo medio supra impresso, versus apicem evanescente, subtus prominente, adpresse albo-pilosa, juvenilia dense albo-strigosa, lateralibus supra obsoletis, subtus conspicuis, reticulato-venosis, breviter pilosis, utroque latere 3–5, margine anastomisantibus, supra glabra, subtus in nervis pubescentia, vetustiora glabrescentia, margine plano vel paullo recurvo, brunneo-nigrescentia in sicco, chartacea. Inflorescentiae capitula terminalia in apice ramorum lateralium; pedunculo 3–7 mm longo, sericeo-piloso; bractee basi connatae, trilobulatae, lobulus medius lateralibus longior, utrinque dense albo strigosae, 1,5–2 mm longae; calycis tubus subcylindricus, 1–1,5 mm longus, strigosus, lobi 5 (6) triangulares, tubo breviores. Corolla rosea vel roseo-purpurea, 1,5–1,7 cm longa, tubus gracilis, 1,2–1,3 cm longus, apice ampliatus, retrorse albo-pilosus, lobi 5, obovati, apice rotundati, 3–4 mm longi, extrinsecus dense albo-pilosi, intus papilloso et pilis gracillimis brevibusque obsiti. Anthera in parte tertia inferiore dorsi fauce corollae affixa, filamenta glabra, 0,5 mm longa, antherae oblongo-lineares, 2 mm longae; stylus bilobatus, usque ad 5 mm longus, lobulis 0,5–1,0 mm longis. Fructus globosus, breviter pilosus, 3–3,5 mm in diametro.

Obs.: *Rondeletia moaënsis* Alain affinis, quae foliis majoribus, oblongo-ellipticis, nervis lateralibus subtus prominulis, capitulis 3–5-plo longiore pedunculatis, floribus albis bene differt.

Obs.: *R. glomeruliflora* Alain a specie nostra caulibus retrorse albo-strigosis, foliis majoribus, subtus cinereo-tomentulosis, fructibus majoribus differt.

Typus: Prov. Oriente: Region de Moa, in fruticetis serpentinosi reservationis Cupeyal de Norte supra pag. Yateras. Leg.: S. VAZQUEZ, A. BORHIDI et O. MUÑIZ, 11. II. 1970. SV; isotypus: Bp. 503069.

Casasia nigrescens (Griseb.) Wr. ex Urb.

ssp. *nigrescens*

Folia minoria 3,5–8,5 cm longa, 0,7–2,0 cm lata, margine valde revoluta, fructus 2,5–4,0 cm in diametro.

Distributio: Prov. Oriente: Sierra de Nipe, Sierra de Cristal; Specimina examinata: Sierra de Nipe: ACUÑA 19 357, CARABIA 3804, LEON 19 858, 20 415, 20 416, 19 253; Sierra de Cristal: ACUÑA 19 789, ALAIN 5738, 5838.

ssp. *moaënsis* Borhidi et Muñiz ssp. nova

Folia majoria, 7,0–11,0 cm longa, 2,0–4,5 cm lata, margine plana vel subrevoluta, fructus 4,0–7,0 cm in diametro.

Typus: Region de Moa: in fruticetis serpentinosi humidis ad rivum Rio Yamanigüey, in alt. 15 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ. 24. III. 1970. SV; isotypus: Bp. 503064.

Distributio: Prov. Oriente: Region de Moa, Toa et Baracoa. Specimina examinata: Moa: ACUÑA 13 355, Mrs. BUCHER 193, CLEMENTE et CHRYSOGONE 4959, LEON 20 868, 21 073, M. LOPEZ FIGUEIRAS 711, 1308, 2162, SAMEK SV 27 032; Baracoa: Mrs. BUCHER 194, J. NATENSON SV 24 663.

***Guettarda Roigiana* Borhidi et Muñiz sp. nova (Fig. 14)**

Frutex 2 m altus; ramuli ferrugineo vel brunnescente pilosi. Stipulae triangulari-lanceolatae, 4–8 mm longae, acutae vel acuminatae, strigilloso-pilosae, nervo medio dorso conspicuo. Folia oblonga vel oblongo-elliptica, 2,0–4,0 cm longa, 0,7–1,6 cm lata, apice obtusa, basi obtusa v. rotundata v. subcordata, juvenilia supra ciliata demum glabra, subtus



Fig. 14. *Guettarda Roigiana*, SV. 27131, type specimen

albescenti-tomentulosa et reticulato-venosa, margine undulata, coriacea. Flores 1—2 in axillis, pedunculis 6—10 mm longis. Fructus subglobosus 11—13 mm in diam., 4-locularis, lanato-tomentulosus. Flos ignotus.

Obs.: Affinis *Guettarda clarensis* Britt., quae fructibus sessilibus, et *G. undulatae* Griseb. quae stipulis obtusis, fructibus minoribus et 6-locularibus differt. An species hybridogena inter *G. clarensis* et *G. calyptrata*?

Holotypus: Prov. Las Villas: in fruticetis siccis serpentinosis “cuabales” inter opp. Santa Clara et pag. Camajuani. 2. IX. 1969. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ. B. 275, SV 27 131.

Guettarda Munizii Borhidi sp. nova

Frutex 4—5 m altus. Rami vetustiores teretes, glabri, grisacei, parcissime lenticellosi, hornotini pilis longioribus ferrugineo villosulis et aliis perbrevibus densissime obsessi. Stipulae 6—12 mm longae, inferne tubuloso-eonjunctae, apice acutae vel subulato-acuminatae, intus sericeae, extrinsecus pube ramorum. Folia petiolis teretibus, supra vix sulcatis, 1,5—2 mm crassis, 5—10 mm longis, ferrugineo puberulis et villosulis, ovata vel oblongo-ovata, 7—15 cm longa et 5—7 cm lata, apice obtusa vel rotundata, basi cordata, nervo medio supra inferne impresso, dense ferrugineo-piloso, superne paullo prominulo, lateralibus utroque latere 7—8 sub angulo 50° abeuntibus, arcuatis, ad marginem non conjunctis, supra tenuiter prominulis et reticulato anastomisantibus, subtus crassiuscule prominentibus et reticulato-venosis, supra laevibus parce et longe pilosis vel demum glabrescentibus, subtus ad nervos breviter et sparse albo-pilosis, inter nervos glabra, margine irregulariter crenulata, plana, chartacea vel subcoriacea. Pedunculi floriferi 12—15 mm longi, pube ramorum, inflorescentia corymbosa terminalis 5—7-flora. Bractae florum 2, 8—10 mm longae, subulatae; calyx in alabastro calyptriformi, 8—12 mm longus. Corolla 2,2—3,5 cm longa, alba, extrinsecus dense albo-sericea, lobuli 7—8, inaequales, oblongi, 4—10 mm longi, apice truncati vel obtusi, 2—2,5 mm lati, tubo 2—3,5-plo breviores. Stamina ad faucem corollae inserta, filamenta nulla, antheris sub medio affixa; antherae oblongo-lineares, 3 mm longae, stylus crassiusculus, dense adpresse pilosus, stigmata subglobosa a basi antherarum 6 mm distantia, e fauce corollae paullo exserta. Ovarium 2-loculare.

Typus: Prov. Camagüey: Montes Cubitas, in silvis saxosis calcareis “mogotis” ad Paso de los Paredones. Leg.: A. BORHIDI et O. MUÑIZ 16. VII. 1970. No. 27 127 SV; isotypus: Bp. 503288.

Obs.: Affinis *G. lanuginosae* Urb. et Britt., quae foliis subtus ad nervos longius et inter nervos dense lanuginosis, fructibus 4—5-locularibus bene differt.

Shaferocharis multiflora Borhidi et Muñiz sp. nova (Fig. 15)

Frutex resinifluus, 3—4 m altus; rami vetustiores teretes, cinerascens, hornotini obtuse quadrangulares, stipulis persistentibus obtectis, in sicco brunnescentes, dense brevipubescentes et glandulis sessilibus glandulosi; internodiis 6—12 mm longis. Stipulae interpetiolares triangulares vel triangulari-ovatae, 2—3 mm longae, dorso brevissime pilosae, nervo medio prominenti, 2—4 mm longe aristatae, intra petiolos inter sese liberae vel basi vix connatae. Folia opposita, 2—3 mm longe petiolata, oblongo-oblanceaolata, 4—6 cm longa 0,7—1,6 cm lata, basi longe cuneata, apice acuta vel breviter acuminata, mucrone incrassato, plerumque reflexo, margine integro, plano vel vix recurva, coriacea; supra obscure viridia, olivaceo-viridia vel flavicantia, utrinque resinosa. Nervus medius supra inferne impressus vel planus, antice evanescens, subtus prominens. Inflorescentiae axillares, longe pedunculatae, capitatae, multiflorae, 6—20 floribus, resina obtectae. Pedunculi 2—5 cm longi, angulati, puberuli, superne incrassati. Involucrum ex euphyllis 4, deciduis, ovatis, acutis, coriaceis et decussatis. Euphylla involucralia externa 5—8 mm, interna 2—4 mm longa, nervo medio supra inconspicuo, subtus impresso. Flores sessiles, parvi. Calycis tubus brevis, a latere compressus; lobi 4, triangulares, compressi, apice cucullati. Corolla 4—5 mm longa, flava; tubus inferne cylindraceus, valde angustatus, superne 4-angulatus, dilatatus; intus glaber; lobi 4,



Fig. 15. Type specimen of *Shaferocharis multiflora*, SV. 27122

valvati, tubo subaequilongi, ovato-triangularis, margine incrassato, revoluta. Stamina 4, tubo corallino supra basin inserta; filamenta filiformia, antherae dorso sub medio affixae paullo exsertae, ovato-oblongae. Discus carnosus breviter conicus, supra fructum bipartibilis. Ovarium 2-loculare, dense pubescens, stylus staminibus longior, cylindricus, apice subglobosus. Ovula in loculis solitaria, parieti medianae medio affixa, elongata. Capsula parva, obovata, a latere compressa, dense et brevissime puberula, 2-locularis, septicide 2-valvis, valvis intus usque ad basim dehiscentibus. Semina 1–1,5 mm longa, angustato-oblonga, brunneo-nigrescentia, rugoso-hispidula, ad insertionem albicantem incrassata.

Obs.: E genere *Shaferocharis* adhuc monotypico cognito. *S. cubensis* Urb. a specie nostra foliis multo minoribus, 1–1,7 cm longis et 4–8 mm latis, inflorescentia 3-flora, subsessili, 1–4 mm longe pedunculata valde differt.

Typus: Prov. Oriente: Region de Moa; in fruticetis humidis serpentinosis ad rivum Rio Yamanigüey, in alt. 25 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 24. III. 1970. No. 27 122 SV; isotypus: Bp. 503111.

Fam.: Asteraceae

Phania cajalbanica Borhidi et Muñiz sp. nova

Suffrutex usque 1 m altus, rariter prostratus vel ramosissime reptans; ramuli cylindracei, strigillosi, breviter pilosi vel glabriusculi. Folia opposita, ovata vel elliptica 0,5–1,2 cm longa, profunde trilobato-incisa, tripartita vel trifoliolata, supra glabra vel glabrescentia, subtus glabra et nervis glabris, paullo impressis, glandulis manifeste impressis. Capitula parva, usque 5–6 mm longe pedunculata, in corymbo terminali laxe composita, homogama, tubiflora; bractee involucrales 2–3 mm longae, oblongo-lanceolatae, apice acutae vel acuminae, pilosae et glandulosae, nervo medio conspicuo. Corolla alba; 1–1,5 mm longa; achaenio oblongo, 1 mm longo, squamae pappus 5, glandulosae.

Obs.: *Phaniae matricarioidis* (Spreng.) Griseb. affinis, quae foliis 1,0–5,0 cm longis, triangulari-ovatis, margine 5–13 crenulato-dentatis vel lobulatis, utrinque pilosis vel pubescentibus, subtus nervis prominulis puberulisque, glandulis paullo impressis differt.

Typus: Prov. Pinar del Rio: Montes Cajalbanenses, in pinetis siccis solo lateritico, supra La Mulata in alt. 200–300 m s. m. Leg.: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ 24. XI. 1969. SV; isotypus: Bp. 503112.

Specimina examinata: Montes Cajalbana: ALAIN 1154, 4481.

Chaptalia turquinensis Borhidi et Muñiz sp. nova (Fig. 16)

Perennans. Folia basalia petiolis 1–3,5 cm longis, membranaceo-alatis, 5–12 mm latis, dorso araneoso-lanuginosis suffulta, oblongo-oblancoolata vel oblongo-obovata, inferne sensim angustata, apice acuta vel breviter acuminata, 5–11 cm longa, 1–2 cm lata, margine superne undulata vel crenulato-denticulata, inferne 2/3 limbi lobis continuis semi- vel sub-orbicularibus; nervo medio et lateralibus supra valde impressis, subtus prominentibus, utrinque reticulatis et areolis valde bullata; supra obscure viridia, glabra vel glabrescentia, nitida, papillosa, subtus dense araneoso-lanata, albida, subcoriacea vel coriacea. Inflorescentiae ex eadem planta 1–4, pedunculus 15–30 cm longus, 1–1,5 mm crassus, purpureo-coloratus, araneoso-tomentosus. Capitula 12–15 mm longa, 3–3,5 cm in diametro, semiglobosa; involucri squamae inaequilatae, lineali-lanceolatae, longe acuminae vel subulatae, inferne araneosae, superne glabrescentes, sub apice margine denticulatae vel pilosae, nervo conspicuo vel prominulo, usque 15 mm longae et 0,8 mm latae. Flores in sicco flavido-purpurascentes (verisimiliter rosei) cc. 50–70, radiales usque 30, 10–14 mm longi, lobi corollae sublineares apice emarginati, tubo filiformi (4–5 mm longo) subaequilongi vel tubum paullo superantes (6–7 mm longi), usque 1 mm lati; flores regulares numerosiores, 6–8 mm longi, glabri, e tubo valde sensim in limbum abeuntes, lobis 6, anguste lanceolatis, tubo duplo longioribus, apice obtusis, crassiusculis. Achaenia immatura in hoc statu cum rostro 3 mm longa, sulcata, glabra vel glabrescentia; rostrum papilloso pilosum, achaenio ipso aequilongum. Pappus purpurascens coloratus, 4–5 mm longus, rugosus v. breviter pilosus.

Obs.: Affinis *Ch. crassiusculae* Urb., quae foliis subbullatis, nervis subtus non vel paullo conspicuis, capitulis, squamis involucralibus, floribusque radialibus minoribus, rostris achaenio multo brevioribus bene differt.

Typus: Prov. Oriente; Sierra Maestra, in saxosis subalpinis montis Pico Turquino, ad "Paso de los Angustios", in alt. 1800 m s. m. Leg.: V. SAMEK No. 815. SV. 27 125.

Specimina examinata: Pico Turquino: Pico Cuba, V. SAMEK; P. Real, J. ACUÑA; Pico Cuba: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ; Paso de los Angustios: A. BORHIDI, O. MUÑIZ et S. VAZQUEZ.

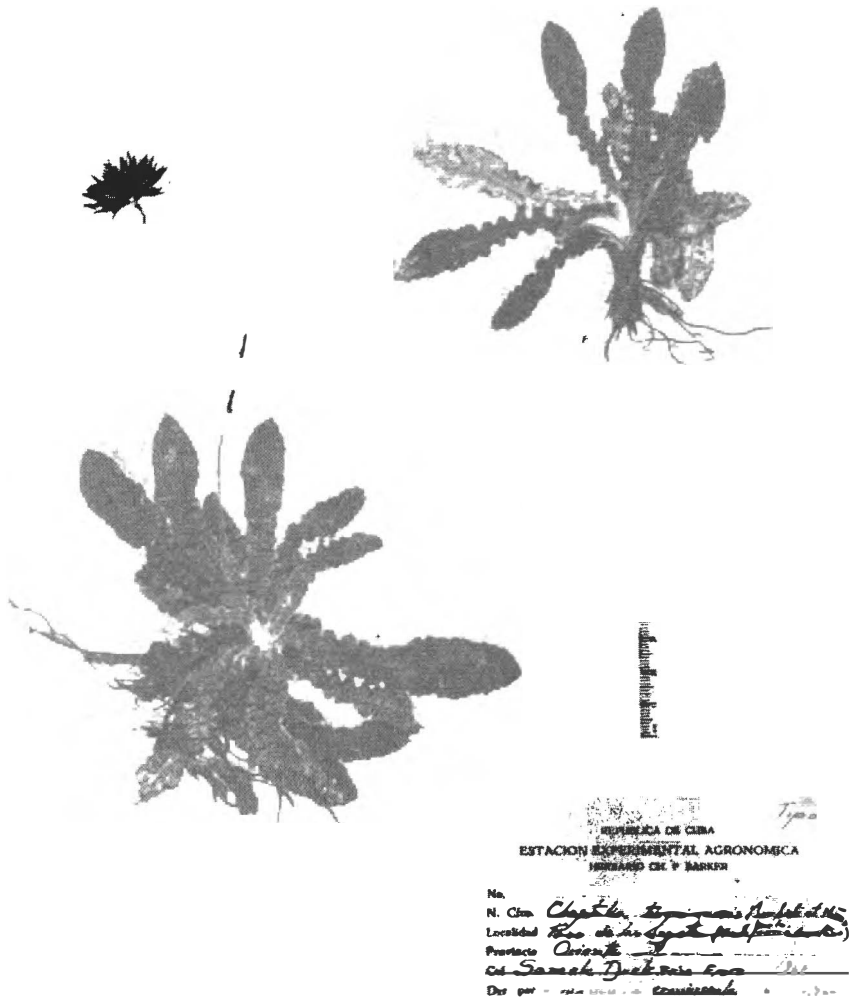


Fig. 16. Type specimen of *Chaptalia turquinensis*, SV. 27125

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