



## **Cuban novelties in the genus *Mosiera* (Myrtaceae)**

Authors: Cruz, Armando J. Urquiola, and Ramos, Zenia Acosta

Source: *Willdenowia*, 38(2) : 533-544

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: <https://doi.org/10.3372/wi.38.38213>

---

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](http://www.bioone.org/terms-of-use).

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

ARMANDO J. URQUIOLA CRUZ &amp; ZENIA ACOSTA RAMOS

## Cuban novelties in the genus *Mosiera* (*Myrtaceae*)

### Abstract

Urquiola Cruz, A. J. & Acosta Ramos, Z.: Cuban novelties in the genus *Mosiera* (*Myrtaceae*) [Novitiae florae cubensis 28]. – Willdenowia 38: 533-544. – ISSN 0511-9618; © 2008 BGBM Berlin-Dahlem.

doi:10.3372/wi.38.38213 (available via <http://dx.doi.org/>)

Descriptions and figures of five endemic species of *Mosiera* new to science are provided. *M. occidentalis* is from W Cuba and *M. baracoensis*, *M. bissei*, *M. macrophylla* and *M. yamaniguensis* are from E Cuba. A map shows their known distribution.

Additional key words: *Myrtoideae*, *Myrtinae*, taxonomy, Cuba

### Introduction

Botanical expeditions all over Cuba, led by Professor Johannes Bisse and attended by several other German and Cuban botanists, resulted in the collection of at least five so far unnamed taxa of the genus *Mosiera* Small. Bisse proposed names for four of them and provided for having two of them drawn. Since the first author undertook to prepare the treatment of *Myrtaceae* for the “Flora de la República de Cuba”, he conducted field work in many parts of Cuba and managed to visit the localities in which the new species had been found, collect further specimens and gather supplementary information on each taxon. It is fortunate that specimens with flowers and fruits are currently available for all but one species, enabling their complete description.

The genus *Mosiera* was established by Small (1933) for two species of Florida and the Bahamas, of which *M. longipes* (O. Berg) Small later was designated by McVaugh (1956: 142) to provide the generic type. Cuba is the centre of diversity of the genus. Many of these species were originally placed in *Myrtus* L., a genus that according to Bisse & Rankin (1984) has a Euro-African distribution and a nomenclatural type, *Myrtus communis* L., from Europe. Bisse (1986) demonstrated that the “Antillean *Myrtus*” species are more closely related among them and with *Psidium* L. than with “Euro-African *Myrtus*”, but that sufficient differences separate the Antillean species from *Psidium* to justify maintenance of *Mosiera* as an independent genus.

The basic differences between *Mosiera* and *Psidium* are found in the calyx (4 sepals with regular separation in *Mosiera* versus 4-5 breaking apart irregularly in *Psidium*), the seed testa (shining in *Mosiera* versus opaque in *Psidium*) and the glands of the staminal connective (single in *Mosiera* versus more than one in *Psidium*).

Bisse (1986) transferred to *Mosiera* 9 Cuban species described as *Myrtus*, 6 described as *Eugenia* and 5 as *Psidium*. Supplementary notes and corrections were provided by Borhidi (1994). González-Oliva (in prep.) is proposing the transfer to *Mosiera* of yet another species originally described under *Calycorectes*. At present we recognise 28 taxa (species and subspecies) of *Mosiera* in Cuba including the 5 new species described below. No less than 26 of them are endemic to the island, the exceptions being *M. longipes* (Cuba, Bahamas, Florida) and *M. guineensis* (Antilles and continental America).

## Material and methods

For all newly collected, fresh material used for this study vouchers are kept in the herbarium of the Instituto Superior Pedagógico de Pinar del Río (HPPR). For species identification the treatment of *Myrtaceae* in Flora de Cuba (Alain 1953), as well as other floristic and monographic literature relevant for the Caribbean region (Alain 1989, 1994; Sánchez-Vindas 1990a-b; Acevedo-Rodríguez 1996; Holst & al. 2003) were used. Furthermore, the material kept in Cuban and foreign herbaria was revised in order to verify that the species here described are indeed new.

## Results

### *Mosiera baracoensis* Bisse ex Urquiola & Z. Acosta, **sp. nov.**

Holotype: Cuba, province Guantánamo, “Baracoa: orillas del río Báez, cerca del campamento ‘Los Naranjos’”, 1.-3.8.1975, *Álvarez de Zayas & al. HFC 26867* (HAJB; isotypes: B, JE). – Fig. 1.

*Frutex vel arbor* ad 5 m alta. *Folia* petiolo supra canaliculato 0.3-7 cm longo et 0.7-1.1 mm crasso suffulta; lamina elliptica, (4-)6-7.7(-10.7) cm longa, (2-)3-3.7(-5) cm lata, latitudine 2.1-plo longior, margine leviter revoluta, apice acuta subacuminata, basi cuneata. *Flores* solitarii vel 2-3 fasciculati. *Pedicellus* applanatus, bicostatus, glandulosus, 2-3 cm longus et 1-1.5 mm crassus. *Hypanthium* cupuliforme, supra ovarii apicem valde protractum. *Sepala* 4, triangularia, concava, 5 mm longa, 3 mm lata, in alabastro regulariter disposita. *Petala* alba, 4 mm longa et lata, minute glandulosa, margine glanduloso glabra. *Stamina* numerosa, 8 mm longa. *Ovarium* subglobosum, biloculare, loculis multiovulatis. *Fructus* subglobosus, 0.9-1.3 cm diametro, glaber, glandulosus. *Semina* ad summum 9, irregulariter reniformia, 3-4 mm longa; testa cartilaginea, lucida; embryo lunaris.

*Shrubs or small trees* up to 5 m tall; branches glabrous, the youngest reddish with numerous blackish glands, the old ones grizzily to whitish. *Leaves* with petiole channelled adaxially, papillose, darker than the lamina, 0.3-7 cm long, 0.7-1.1 mm in diameter; lamina (4-)6-7.7(-10.7) cm long, (2-)3-3.7(-5) cm wide, 2.1x as long as wide, margins slightly revolute, light brown on the upper surface and dark brown to reddish on the lower surface, with abundant conspicuous blackish glands, apex slightly acuminate, base cuneate, symmetrical; midvein sunken on the upper surface, prominent on the lower surface, lateral veins branching from the midvein in an angle of c. 30°, in 11-14 pairs joined next to the margins, marginal veins less evident than the laterals. *Flowers* arising side by side with the young branches, solitary or in fascicles of 2-3. *Pedicel* glandulose, bicostate, 2-3 cm long, 1-1.5 mm in diameter. *Sepals* 4, triangular, concave, 5 mm long, 3 mm wide, regularly distributed in the bud. *Hypanthium* strongly prolonged above the apex of the ovary. *Petals* white, 4 mm long and wide, with small glands, margins glabrous and glandulose. *Stamens* numerous, 8 mm long; anthers 0.5 mm long. *Style* glabrous, exceeding the stamens, slightly curved, 6 mm long; stigma truncate; ovary subglobose, bilocular, with numerous ovules per locule.



Fig. 1. *Mosiera baracoensis*, branch with fruits. – Drawing by Nolán Iglesias Martínez, drawn from the holotype.

*Fruits* subglobose, glabrous, glandulose, 0.9-1.3 cm in diameter, with up to 9 seeds. *Seeds* 3-4 mm long, irregularly kidney-shaped; testa lustrous, cartilaginous; embryo C-shaped.

*Distribution.* – Locally endemic in E Cuba, province Guantánamo, municipality Baracoa. Only known from two neighbouring localities (Fig. 2).

*Habitat.* – Rain forest; flowering June to July, fruiting in July.

*Additional specimens seen.* – CUBA: PROVINCE GUANTÁNAMO: Baracoa, orillas del río Báez, desde el campamento “Los Naranjos” hasta Camarones, 5.8.1975, *Álvarez de Zayas & al.* HFC 27039 (B, HAJB, JE); río Báez, en las cercanías del campamento los Naranjos, 200-250 m, 23.8.2008, *Urquiola, Acosta, Nodarse, Nodarse & Ramos 11003* (HPPR).

*Etymology.* – The epithet *baracoensis*, already suggested by Bisse, derives from the name of the municipality in which the locus classicus is situated.

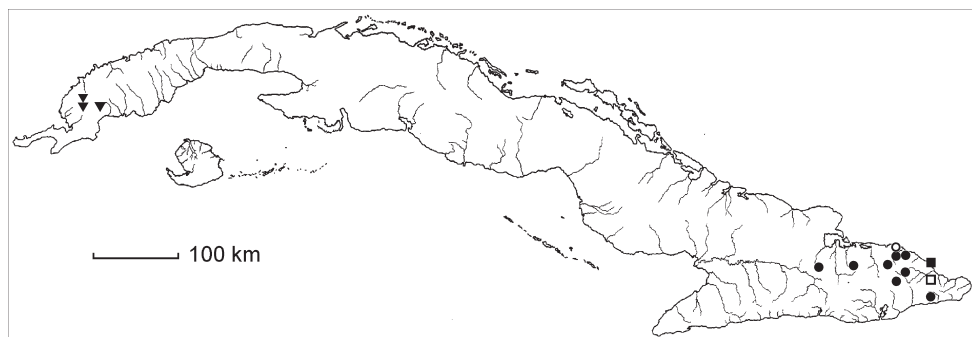


Fig. 2. Known distribution of *Mosiera occidentalis* (▼), *M. baracoensis* (■), *M. yamaniguensis* (○), *M. bissei* (□) and *M. macrophylla* (● + ■, ○, □, as it is also present in the marked localities of the three preceding species).

***Mosiera bissei* Urquiola & Z. Acosta, sp. nov.**

Holotype: Cuba, province Guantánamo, “Baracoa: Pluvisilva al sur de la loma del Yunque”, 300-400 m, 9.-10.2.1972, *Bisse HFC 21451* (HAJB; isotypes: JE). – Fig. 3.

*Frutex vel arbor* parva ad 5 m alta. *Folia* petiolo brevi glanduloso subcylindrico supra plano 1.2 mm longo, 0.7 mm crasso suffulta; lamina obovato-elliptica, 1.5-2.2 cm longa, 0.6-0.8 cm lata, latitudine 3.5-plo longior, margine revoluta; apice obtusa vel rotundata, basi cuneata. *Flores* sub apice ramorum hornotinorum solitarii axillares, 1-2 in quoque nodo. *Pedicellus* tenuis, subcylindricus, striatus, 1.1-1.4 cm longus, 0.3-0.4 mm crassus. *Hypanthium* supra ovarii apicem leviter productum. *Sepala* 4, triangularia, concava, 3 mm longa, 2 mm lata, in alabastro regulariter disposita. *Petala* alba, 3 mm longa et lata. *Stamina* numerosa, 5 mm longa; antherae 0.4 mm longae. *Ovarium* subcylindricum, biloculare. *Fructus* ignotus.

*Bushes or trees* up to 5 m tall; young branches reddish with numerous blackish glands. *Leaves* with petiole semicylindrical, adaxially flattened, glandulose, 1.2 mm long and 0.7 mm wide; lamina ovate-elliptic, 1.5-2.2 cm long, 0.6-0.8 cm wide, 3.5× as long as wide, revolute, brownish and opaque on both surfaces, strongly glandulose, with cuneate base and obtuse to rounded apex; midvein in the proximal  $\frac{2}{3}$  sunken on the upper surface, prominent on the lower surface, lateral veins inconspicuous. *Flowers* situated in the upper portion of young branches, solitary in the leaf axils, 1-2 per node. *Pedicel* thin, subcylindrical, longitudinally striate, 1.1-1.4 cm long, 0.3-0.4 mm in diameter. *Sepals* 4, triangular, concave, 3 mm long, 2 mm wide, regularly distributed in the bud, glandulose. *Hypanthium* slightly prolonged above the apex of the ovary. *Petals* white, 3 mm long and wide, with small glands and hairy margins. *Stamens* numerous, 5 mm long; anthers 0.4 mm long. *Style* glabrous, exceeding the stamens, 5 mm long; stigma head-like; ovary subcylindrical, truncate in the lower portion and lightly enlarged above, bilocular. *Fruits* unknown.

*Eponymy.* – The epithet *bissei* commemorates Professor Johannes Bisse, whose much lamented, unexpected death on 18 December 1984 prevented him from pursuing and completing the revision of Cuban *Mosiera*.

*Distribution.* – Locally endemic in E Cuba, province Guantánamo, municipality Baracoa. Only known from the type locality (Fig. 2).

*Habitat.* – Rain forest and xeromorphic spiny scrub on serpentine soil (charrascales); flowering in February.

*Additional specimen seen.* – Prov. Guantánamo, Baracoa, pluvisilva al norte de playa Maguana, 250-300 m, 23.8.2008, *Urquiola, Acosta, Nodarse, Nodarse & Ramos 11012* (HPPR).

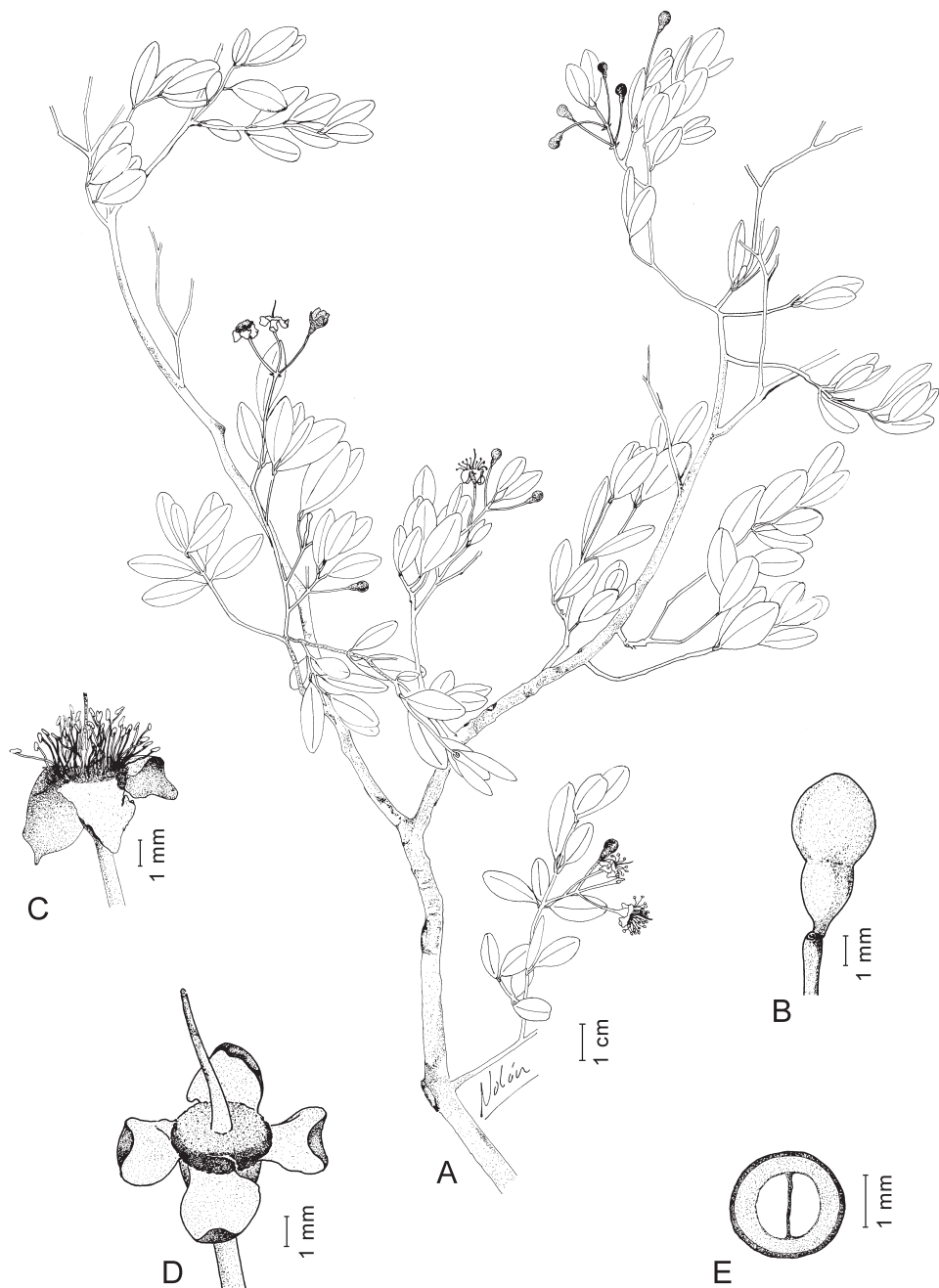


Fig. 3. *Mosiera bissei* – A: branch with flowers; B: flower bud; C: open flower (petals shed); D: post-anthetic flower (petals and stamens shed); E: cross-section of the ovary (ovules removed). – Drawing by Nolán Iglesias Martínez, drawn from the holotype.

***Mosiera macrophylla*** Bisse ex Urquiola & Z. Acosta, **sp. nov.**

Holotype: Cuba, province Guantánamo, “Baracoa: orillas del río Báez, cerca del campamento ‘Los Naranjos’”, 18.8.2007, *Urquiola & Acosta 10946* (HPPR; isotypes: B, HAC, HAJB, JE). – Fig. 4.

*Frutex*, saepius caducifolius, vel *arbor* ad 10 m alta. *Folia* petiolo supra canaliculato glanduloso 0.8-1.2 cm longo et 2-2.7 mm crasso suffulta; lamina elliptica, (5-)8-13(-15) cm longa, (3-)4-6 (-7) cm lata, latitudine 2.2-plo longior, margine leviter undulata, tenuiter revoluta, apice subacuta, obtusa vel rotundata, basi late cuneata, aliquando obliqua. *Flores* simulac folia evoluti, solitarii vel 2-3 fasciculati. *Pedicellus* cylindricus, 3-5 mm longus, 1.5-2.5 mm crassus. *Hypanthium* cupuliforme, supra ovarii apicem valde protractum. *Sepala* 4, triangularia, concava, 5 mm longa, 3 mm lata, in alabastro regulariter disposita. *Petala* alba, 4 mm longa, 4 mm lata. *Stamina* numerosa, 8 mm longa; antherae 0.5 mm longae. *Ovarium* subcylindricum, biloculare, loculis multiovulatis. *Fructus* subglobosus, glaber, 1.1-1.6 cm diametro. *Semina* 10 vel plura, reniformia, 3-4 mm longa; testa cartilaginea, lucida; embryo lunaris.

*Shrubs or trees* up to 10 m tall, usually deciduous; branches glabrous, the youngest reddish with numerous blackish glands, the old ones grizzly to whitish. *Leaves* with petiole channelled adaxially, glandulose, 0.8-1.2 cm long, 2-2.7 mm wide; lamina elliptic, (5-)8-13(-15) cm long, (3-)4-6(-7) cm wide, 2.2× as long as wide, margins slightly undulate, narrowly revolute, light green and lustrous on both surfaces, with inconspicuous glands, apex subacute to rounded, base widely cuneate, sometimes asymmetrical; midvein in the proximal  $\frac{2}{3}$  sunken on the upper surface, prominent on the lower surface, lateral veins branching in an angle of c. 30° from the midvein, conspicuous, in 14-15 pairs joined next to the margin. *Flowers* on young branches, appearing contemporary with the young leaves, solitary or in fascicles of 2-3. *Pedicel* cylindrical, 3-5 mm long, 1.5-2.5 mm in diameter. *Sepals* 4, triangular, concave, 5 mm long, 3 mm wide, regularly arranged in the bud, recurved toward the ovary at anthesis and closed again on the hypanthium at fruit. *Hypanthium* strongly prolonged above the apex of the ovary. *Petals* white, 4 mm long and wide, with small glands, margins hairy. *Stamens* numerous, 8 mm long; anthers 0.5 mm long. *Style* glabrous, exceeding the stamens, slightly curved, 6 mm long; stigma slightly head-shaped; ovary subcylindrical, truncate in the lower portion and enlarged upwards, being narrowed toward the hypanthium, bilocular, with numerous ovules per locule. *Fruits* subglobose, glabrous, 1.1-1.6 cm in diameter, green to yellowish, reddish or purple at maturity. *Seeds* 10 or more per fruit, 3.4 mm long, kidney-shaped; testa gristly, lustrous, embryo C-shaped.

*Etymology*. – The epithet *macrophylla*, already suggested by Bisse, refers to the comparatively large leaves of this species.

*Distribution*. – Endemic in E Cuba (Fig. 2), provinces Holguín (municipalities Mayarí and Moa), Santiago de Cuba (Municipality Segundo Frente) and Guantánamo (municipalities Baracoa and Imías).

*Habitat*. – Rain forest, pine woods and xeromorphic spiny scrub on serpentine soil (charrascales); flowering April to September.

*Additional specimens seen*. – CUBA: PROV. HOLGUÍN: Mayarí, Pinares de Mayarí, río Piloto, cerca del campamento de pioneros, monte semicaducifolio húmedo, caliza mezclada con laterita, 400 m, 28.5.1983, *Bisse & al. HFC 50367* (B, HAJB, JE); Mayarí, Pinares de Mayarí, mogotes y barranco del río Piloto en su curso medio, 400 m, 1.6.1983, *Bisse & al. HFC 50662* (B, HAJB, JE); Mayarí, Pinares de Mayarí, Pinar Redondo, orillas y maniguas cerca del río Piloto, charrascos y pinares, roca ígnea ultrabásica, 350-400 m, 25.5.1983, *Bisse & al. HFC 50182* (B, HAJB, JE); Mayarí, charrascal de La Caridad, pinares de Mayarí, 446 m, 25.8.2008, *Urquiola, Acosta, Nodarse, Nodarse & Ramos 11034* (HPPR); Moa, barranco del arroyo Jaragua, cerca de la Mina Jaragua, charrascales, roca ultrabásica, 200 m, 3.5.1980, *Álvarez de Zayas & al. HFC 42696* (B, HAJB, JE); Moa, camino del aserrío a la Mina La Melba, pluvisilva de montaña, laterita y rocoso,

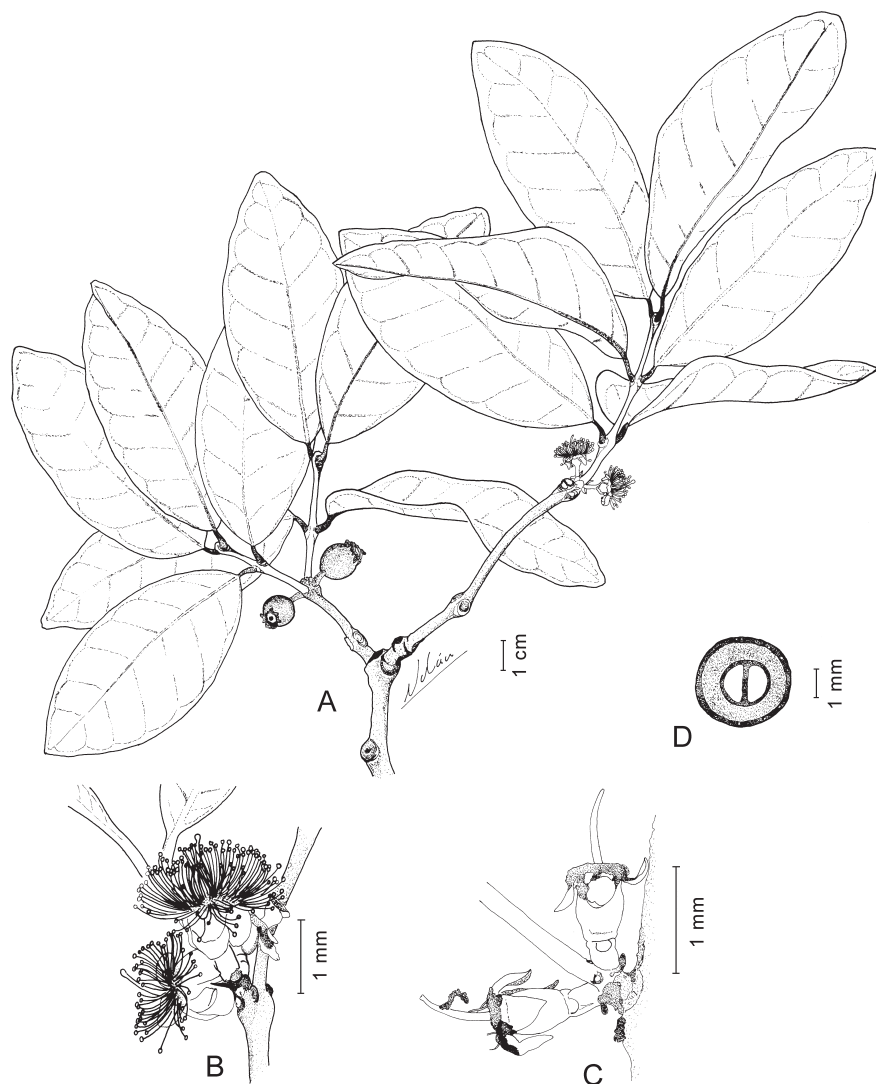


Fig. 4. *Mosiera macrophylla* – A: branch with flowers and fruits; B: fascicle of flowers; C: post-anthetic flowers (petals and stamens shed) inserted at the base of a leafy twig; D: cross-section of the ovary (ovules removed). – Drawing by Nolán Iglesias Martínez, drawn from the holotype.

2.5.1980, *Álvarez de Zayas & al.* HF 42595 (HAJB, JE); Moa, Charrascales cerca de Yamangüey, 12.1969, *Bisse HFC 15218* (HAJB, JE); Moa, orillas del río Yagrumaje, cerca del puente en el camino Moa-Baracoa, 3.1968, *Bisse & Köhler HFC 5995* (HAJB, JE); Moa, pinares cerca de la desembocadura del río Yagrumaje, 3.1968, *Bisse & Köhler HFC 6247* (HAJB, JE); Moa, orillas del río Yagrumaje cerca del puente en el camino Moa-Baracoa, 12.1969, *Bisse HFC 15289* (HAJB, JE); Moa, pluvisilva en el km 6 del camino a La Melba, 24.8.2008, *Urquiola, Acosta, Nodarse, Nodarse & Ramos 11025* (HPPR). — PROV. SANTIAGO DE CUBA: Segundo Frente, arroyos y cañadas en la falda sur de la Loma el Gallego, bosque de galería, suelo silíceo, 29.4.1985, *Álvarez de Zayas & al.* HFC 57010 (B, HAJB, JE). — PROV. GUANTÁNAMO: Baracoa, orillas del río Taco cerca del terraplén, 6.1967, *Bisse & Rojas HFC 3360* (HAJB, JE); Baracoa, valle al



noroste del Yunque de Baracoa, 2.1968, *Bisse & Köhler HFC 5189* (HAJB, JE); Baracoa, pinar en la loma al noroeste de Baracoa, 2.1968, *Bisse & Köhler HFC 5465* (HAJB, JE); Baracoa, charrascal de la Cuaba, 23.3.2004, *Urquiola & Verdecia 10514* (HPPR); Baracoa, río Báez, en las cercanías del campamento los Naranjos, 200-250 m, 23.8.2008, *Urquiola, Acosta, Nodarse, Nodarse & Ramos 11006* (HPPR); Imías, cabezadas del río Jojo, Sierra de Imías cerca de Los Lechugos, 800 m, 15.2.1979, *Bisse & al. HFC 39387* (B, HAJB, JE); Yateras, Palenque, Cuchillas de Toa, Cayo Fortuna a lo largo del río Toa, 4.1970, *Bisse HFC 16772* (HAJB, JE); Yateras, Sierra de Frijol, en el camino del Riíto a Cayo Fortuna, pluviosilva de montaña destruída, 12.5.1983, *Bisse & al. HFC 49360* (B, HAJB, JE).

*Mosiera occidentalis* Bisse ex Urquiola & Z. Acosta, **sp. nov.**

Holotype: Cuba, province Pinar del Río, “en Pinar sobre pizarras, El Zarzal, Guane”, 22°14'10"N, 84°05'36"W, 96 m, 18.8.2003, *Urquiola & Urquiola 10436* (HPPR; isotypes: B, HAC, HAJB). – Fig. 5.

*Frutex vel arbor* parva ad 4 m alta. *Folia* petiolo 0.5-1 cm longo et 1-2 mm crasso suffulta; lamina elliptica, (3-)5-7(-9) cm longa, (1.5-)3-5(-7) cm lata, latitudine 1.6-plo longior, margine revoluta, apice rotundata, basi obtusa, glandulis crebris convexis obsita. *Racemi* breviter pedunculati, ad 4-flori. *Pedicellus* brevis, 1.5-2 mm longus, 1 mm crassus, apice bracteolis binis oppositis squamiformibus 1-3 mm longis et 1-5 mm latis instructus. *Hypanthium* paullo supra ovarii apicem productum. *Sepala* 4, concava, 1.5 mm longa, 2.2 mm lata, glandulosa, in alabastro imbricata, per anthesin patentia, sub fructu denuo supra hypanthium clausa. *Petala* alba, 6 mm longa, 4 mm lata, glandulosa. *Stamina* numerosa. *Ovarium* globosum, biloculare, loculis 8-10-ovulatis; stigma truncatum. *Fructus* subglobosus, 1.7-2 cm longus. *Semen* 1, lateraliter compressum; testa coriacea, lucida; embryo lunaris.

*Shrubs or small trees* up to 4 m tall; branches glabrous, the younger reddish, longitudinally striate, the oldest greyish. *Leaves* with petiole 0.5-1 cm long, 1-2 mm wide, adaxially channelled, papillose; lamina (3-)5-7(-9) cm long, (1.5-)3-5(-7) cm wide, 1.6× as long as wide, margins revolute, papillose, with numerous convex glands, dark green and strongly lustrous on the upper surface, pale green on the lower surface, apex rounded, base obtuse; midvein sunken proximally on the upper surface, prominent on the lower surface; lateral veins branching from the midvein at an angle of c. 40°, in 15-17 pairs with reticulate pattern, sometimes the free terminations with a gland; veins at the margins similar to the later veins. *Flowers* in short-pedunculate racemes by four or less. *Pedicel* 1.5-2 mm long, 1 mm wide; the two bracteoles 1.2 mm long, 1.5 mm wide, covering the lower portion of the pedicel. *Sepals* 4, concave, 1.5 mm long, 2.2 mm wide, margins hairy, surface with convex glands, imbricate in bud, open at anthesis, closed again at fruiting. *Petals* white, 6 mm long, 4 mm wide, with convex glands, margins hairy. *Hypanthium* slightly prolonged above the apex of the ovary, with spreading hairs. *Stamens* numerous, 4-5 mm long; anthers 0.8 mm long. *Style* glabrous, 6 mm long; stigma truncate; ovary globose, bilocular, with 8-10 ovules per locules. *Fruits* subglobose, pubescent, 1.7-2 cm in diameter, green to yellowish to purple at maturity. *Seed* 1, laterally compressed, testa lustrous, coriaceous; embryo C-shaped.

*Etymology.* – The epithet *occidentalis*, already suggested by Bisse, refers to the fact that this is the only new species to grow in the W Cuban province Pinar del Río, where it is confined to three of the four westernmost municipalities.

*Distribution.* – Endemic to W Cuba, province Pinar del Río, municipalities Guane, Mantua and San Juan y Martínez. Very rare (Fig. 2).

*Habitat.* – Pine forests, gallery forests, siliceous rocks, mainly along riversides, on hills of slate; flowering in June to August, fruiting July to September.

*Additional specimens seen.* – CUBA: PROVINCE PINAR DEL RÍO: Guane, pinares en los alrededores de Mina Dora, 14.12.1978, *Bisse & al. HFC 38648* (B, HAJB, JE); Guane, Guillén, Lomas

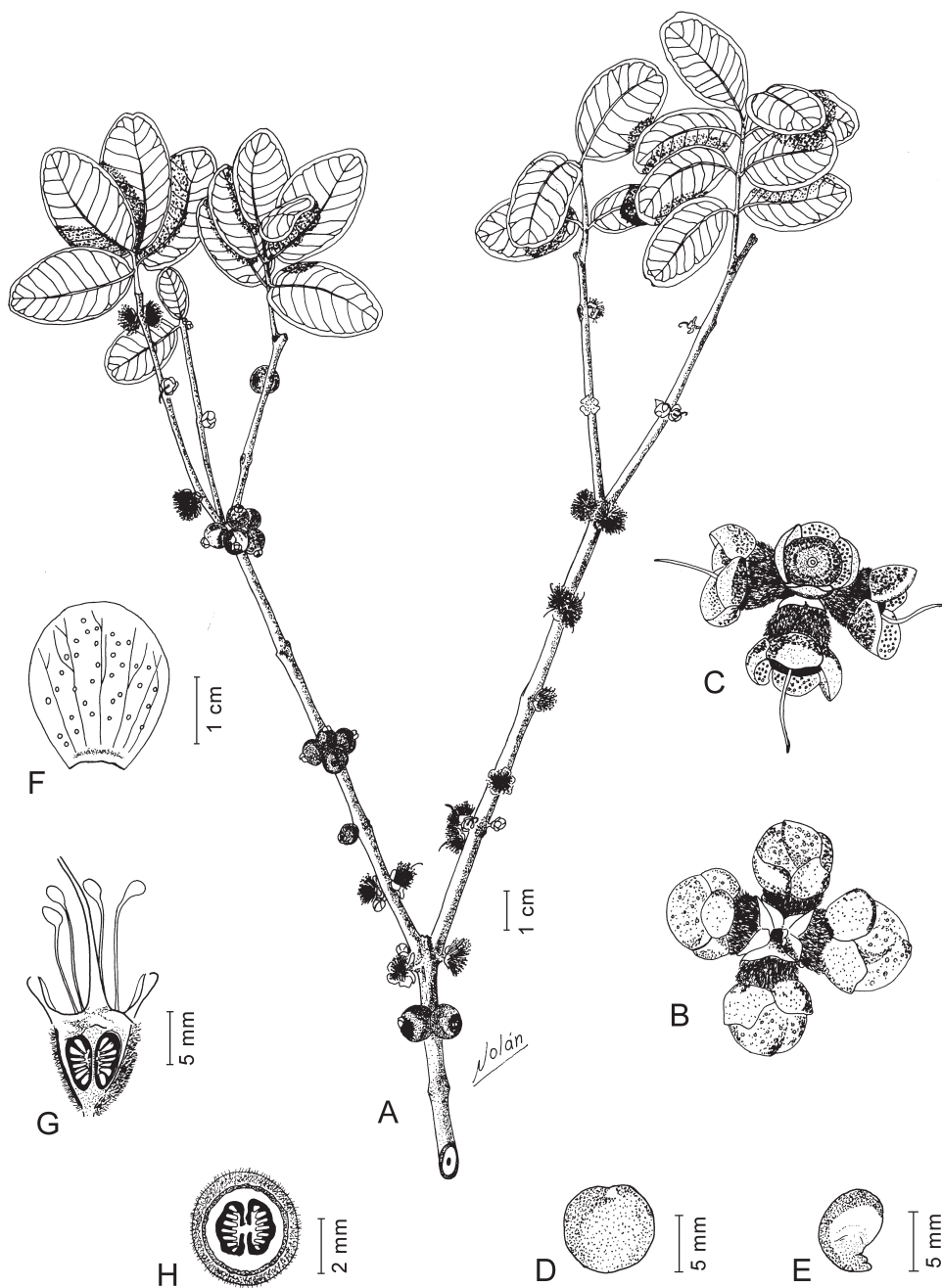


Fig. 5. *Mosiera occidentalis* – A: branch with flowers and fruits; B: raceme with four flower buds; C: four-flowered raceme; D: seed; E: embryo; F: glandular-dotted petal; G: longitudinal section of a flower; H: cross-section of the ovary. – Drawing by Nolán Iglesias Martínez, drawn from the holotype.

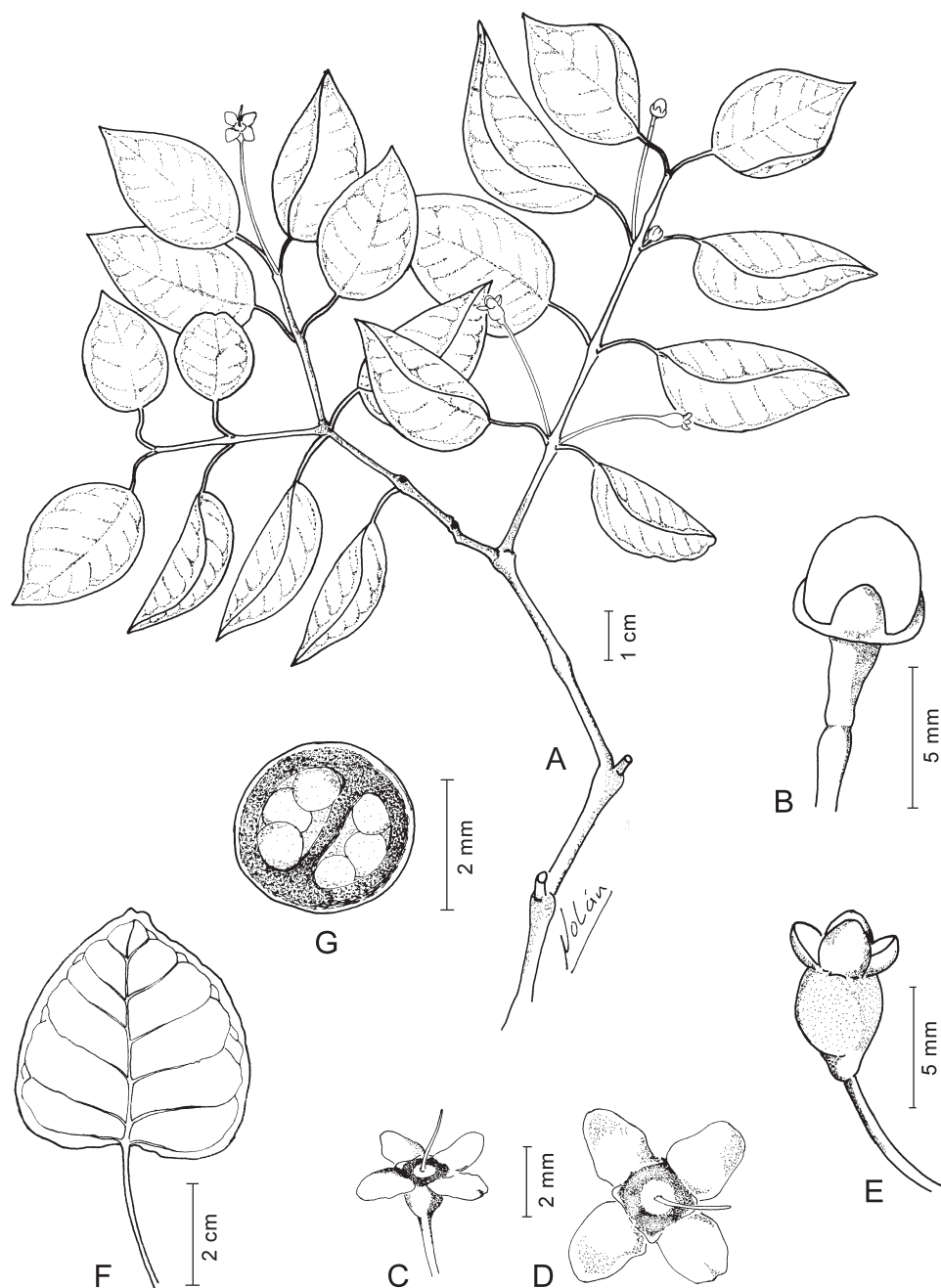


Fig. 6. *Mosiera yamaniguensis* – A: flowering branch; B: flower bud; C-D: post-anthetic flower in oblique and frontal view (petals and stamens shed); E: flower in view showing regular split of the sepals; F: leaf; G: cross-section of the ovary. – Drawing by Nolán Iglesias Martínez, drawn from the holotype.

Contadoras, pinar y manigua, roca cuarcítica, 100-300 m, 15.5.1984, *Bisse & al. HFC 54364* (B, HAJB, JE); Mantua, Camarones, barranco del arroyo Calentura, bosque de galleria, roca silíceas, 18.5.1984, *Bisse & al. HFC 54650* (B, HAJB, JE).

***Mosiera yamaniguensis* Bisse ex Urquiola & Z. Acosta, sp. nov.**

Holotype: Cuba, province Holguín, “Moa: charrascos al oeste de Yamanigüey, serpentina rocosa”, 50 m, 7.5.1980, *Álvarez de Zayas & al. HFC 42934* (HAJB, isotypes: B, JE). – Fig. 6.

*Frutex vel arbor* parva ad 5 m alta. *Folia* petiolo supra canaliculato, 0.9-1.6 cm longo et 0.7-1 mm crasso, glanduloso suffulta; lamina ovata, 3.2-4.5 cm longa, 2.8-4.6 cm lata, latitudine 1.2-plo longior, margine crenulata tenuiter revoluta, apice subacuta, obtusa vel acuminata, basi subcordata saepe obliqua. *Flores* in ramis hornotinis solitarii axillares, insuper in quoque internodio 2-4 extraaxillares. *Pedicellus* subcylindricus, tenuis, 3.1-4.3 cm longus, 1.5-2.5 × 0.2-0.3 mm crassus. *Hypanthium* leviter supra ovarii apicem protractum. *Sepala* 4, triangularia, concava, recta, 3 mm longa et lata, in alabastro regulariter disposita, angulo recto patentia. *Petala* alba, 3 mm longa et lata. *Stamina* numerosa, 7 mm longa; antherae 0.5 mm longae. *Ovarium* subcylindricum, basi truncatum inde leviter ampliatur apice denuo constrictum, biloculare, loculis multiovulatis. *Fructus* oblongo-pyriformis, 0.8-1 cm longus, 0.4-0.6 cm crassus, glaber, glandulosus. *Semina* 5-10, reniformia, 1.5 mm longa; testa cartilaginea, lucida; embryo lunaris.

*Shrubs or small trees* up to 5 m tall; young branches reddish with numerous blackish glands, striated, glabrous. *Leaves* with petiole 0.9-1.6 cm long, 0.7-1 mm wide, adaxially channelled, glandulose; lamina ovate, subcordate, 3.2-4.5 cm long, 2.8-4.6 cm wide, 1.2× as long as wide, margins slightly crenate, slightly revolute, light green to reddish green and lustrous on both surfaces, strongly glandulose, apex obtuse to subacute or acuminate, base subcordate, sometimes somewhat asymmetric; midvein sunken on the upper surface, prominent on the lower surface, lateral veins branching from the midvein at an angle of c. 45°, lateral veins in 10-12 pairs joined near margin. *Flowers* on young branches, solitary, axillary, additional 2-4 flowers per internode extra-axillary. *Pedicel* subcylindrical, thin, 3.1-4.3 cm long, 1.5-2.5 × 0.2-0.3 mm in diameter; bracteoles inconspicuous, hyaline. *Sepals* 4, triangular, concave, 3 mm long and wide, regularly distributed in bud, perpendicular to the hypanthium at anthesis, later partially closed. *Hypanthium* slightly prolonged above the apex of the ovary. *Petals* white, 3 mm long and wide, with small glands and hairy margins. *Stamens* numerous, 7 mm long; anthers 0.5 mm long. *Style* glabrous, exceeding the stamens, 6 mm long; stigma truncate; ovary subcylindrical, truncate at the peduncle and somewhat enlarged upwards, narrowed toward the hypanthium, bilocular, with numerous ovules per locule. *Fruits* oblong-pyriform, 0.8-1 cm long, 0.4-0.6 cm in diameter, glabrous, glandulose, green to yellowish at maturity. *Seeds* 5-10 per fruit, 1.5 mm long, kidney-shaped, testa lustrous, gristly; embryo C-shaped.

*Etymology.* – The epithet *yamaniguensis*, already suggested by Bisse, derives from the name of the locus classicus.

*Distribution.* – Locally endemic in E Cuba, province Holguín, municipality Moa. Only known from two neighbouring localities (Fig. 2).

*Habitat.* – Xeromorphic spiny scrub on serpentine soil (charrascales); flowering May to September, fruiting August to October.

*Additional specimens seen.* – CUBA: PROVINCE HOLGUÍN: Moa, charrascales al este de Yamanigüey, 3.1968, *Bisse & Köhler 6213* (HAJB, JE), *6428* (HAJB, JE); *ibid.*, 9.1.1969, *Bisse & Lippold 12078* (HAJB, JE); *ibid.*, 15.8.1970, *Bisse & Lippold 17854* (HAJB, JE); *ibid.*, 13.4.1985, *Álvarez de Zayas & al. HFC 55809* (B, HAJB, JE); charrascal al sur de Yamanigüey, 50-100 m, 24.8.2008, *Urquiola, Acosta, Nodarse, Nodarse & Ramos 11021* (HPPR).

## Acknowledgements

We are very grateful to the persons and institutions that helped us to achieve our results: to the Botanischer Garten und Botanisches Museum Berlin-Dahlem and especially Professor Werner Greuter, also to the curators of the herbaria B, HAC, HAJB, GH, GOET, JE, K, MO, NY, S and US, who kindly sent us specimens for study, and finally to Lisset Figueredo and Susana Carreras for their help in translating the manuscript into English and Latin, respectively.

## References

- Acevedo-Rodríguez, P. 1996: Flora of St. John, U.S. Virgin Islands. – Mem. New York Bot. Gard. **78**.
- Alain, bro. 1953: Flora de Cuba 3. – Contr. Ocas. Mus. Hist. Nat. Colegio “De La Salle” **13**.
- [Liogier, H. A.] 1989: La flora de la Española **5**. – San Pedro de Macorís.
- [Liogier, H. A.] 1994: Descriptive flora of Puerto Rico and adjacent islands **3**. – Río Piedras (Puerto Rico).
- Bisse, J. 1986 [“1985”]: El género *Mosiera* Small (*Myrtaceae-Myrtoideae*) en Cuba I. – Revista Jard. Bot. Nac. Univ. Habana **6(3)**: 3-6.
- & Rankin, R. 1984: Comparación morfo-anatómica de los géneros *Psidium* L. y *Myrtus* L. (*Myrtaceae*) en Cuba. – Revista Jard. Bot. Nac. Univ. Habana **4(3)**: 11-26.
- Borhidi, A. 1994 [“1992”]: New names and new species in the flora of Cuba and Antilles, IV. – Acta Bot. Hung. **37**: 75-90.
- Holst, B. K., Landrum, L. & Grifo, F. 2003: *Myrtaceae*. – Pp. 1-99 in: Steyermark, J. A. (ed.), Flora of the Venezuelan Guayana **7**. – St Louis.
- McVaugh, R. 1956: Nomenclatural notes on *Myrtaceae* and related families (continued). – Taxon **5**: 133-147. [[CrossRef](#)]
- Sánchez-Vindas, P. E. 1990a: *Myrtaceae*. – In: Gómez-Pompa, A. & Sosa, V. (ed.), Flora de Veracruz **62**. – Xalapa.
- 1990b: Flora de Nicaragua: *Myrtaceae*. – Brenesia **31**: 53-73.
- Small, J. K. 1933: Manual of the southeastern flora. – Chapel Hill.

Address of the authors:

Armando J. Urquiola Cruz & Zenia Acosta Ramos, Jardín Botánico de Pinar del Río, Cuba;  
e-mail: urquiola.cu@gmail.com