

NOTES ON PLANTS OF AVILA AND NAIGUATA MOUNTAINS

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During the course of preparation of a Flora of Avila and Naiguatá, the author has encountered a number of problems which necessitate the following changes in nomenclature or readjustment of taxa.

MONIMIACEAE

Siparuna stellulata Perkins var. **manarae** (Steyermark) Steyermark, *stat. nov.* *Siparuna manarae* Steyermark, Bol. Soc. Venez. Cienc. Nat. **26**: 455, fig. 2. 1966.

At the time *Siparuna manarae* was published, it was believed to be distinct from other species, including *S. stellulata* Perk., because of the sparsely stellate-pubescent stems and leaves, the latter with only obscurely and irregularly denticulate-undulate to subentire margins and obtuse to nearly rounded leaf bases. However, later collections of plants from the north side of Naiguatá, bearing more teeth on the leaf margins and sometimes a greater development of stellate

indument on the stems, petioles, and lower leaf surfaces, would indicate that the taxon *S. manaræ* can be treated only as a localized variety having less prominently and more glabrate leaves.

SOLANACEAE

In the Catálogo de la Flora Venezolana, 2nd volume, 1947, the Solanaceae family was treated by Dr. Pittier and contains many binomials which have never been taken up nor legitimately published, especially those taxa of the genera *Cestrum*, *Cyphomandra*, and *Solanum*. For a new treatment of the family for the Flora of Venezuela, the authors plan to account for the mainly unpublished taxa. Since a few of such names have to be accounted for in the Flora of Avila and Naguayá, they are discussed in the present paper.

Cyphomandra meridensis Pittier *ex* Steyermark & Rojas, *sp. nov.*

In the Catálogo de la Flora Venezolana, 2nd volume, 1947, Pittier four taxa of *Cyphomandra* (pages 353-354). We are concerned here with only three of these [*C. glabra* Pittier, *C. meridensis* Pittier, and *C. diversifolia* (Dunal) Bitter]. Pittier attempted to separate his *C. glabra* from the other taxa by the complete glabry of the leaves, which, in addition, were simple, oval or oblong, and acuminate. Under his concept was also placed herbarium material labelled *Cyphomandra campanulata* Moritz, name only.

At the same time (*loc. cit.*), Pittier differentiated *Cyphomandra meridensis*, based on a collection (*Steyermark 56159*) from Estado Mérida which was indicated as the type. He separated this new taxon from the earlier and legitimately published *C. diversifolia* (Dunal) Bitter, principally on the basis of the inflorescence, placing *C. diversifolia* in a category having simple inflorescences with the flowers more crowded toward one end of the rachis, as opposed to *C. meridensis* with bifid inflorescences and unilaterally arranged flowers. Unfortunately, the character of the bifid versus simple inflorescence has

no value in separating these two taxa. Both taxa vary in having stems and leaves entirely glabrous to those showing varying degrees of pilosity.

Study of available material in VEN herbarium embracing the above taxa, reveals fundamental differences between the two in floral, but not vegetative characters. The distinguishing differences are as follows: 1) the calyx in *C. meridensis* is relatively small and inconspicuous, only 2.5-4 mm. long with lobes 1-2 mm. long and 1.5-2 mm. wide, and the calyx does not become enlarged or accrescent in fructification. Moreover, the calyx lobes are mainly broadly ovate and abruptly acute at the apex; 2) the corolla is sparsely to densely tomentellose without and 10-12 mm. long. In contrast, in *C. diversifolia* the calyx is conspicuous and much larger with lobes 7-10 mm. long and 3-7 mm. wide, oblong-lanceolate to broadly ovate, obtuse to gradually acute or acuminate, and the calyx becomes enlarged and accrescent in fructification, while the larger corolla, 11-15 mm. long, is glabrous or rarely slightly pilosulous without. The fruit, moreover, in *C. meridensis* is ovoid or elliptic-ovoid and relatively short (2.3 cm. long), while that of *C. diversifolia* is narrowly elliptic and attains a length of 7-8 cm.

Since the binomial *Cyphomandra meridensis* Pittier is unpublished, according to article 36 of the International Rules of Nomenclature (1972), we are sustaining Pittier's epithet with a Latin description. Since the type specimen at VEN, (*Steyermark 56159*), is in a poor state of preservation, we are designating as type a different specimen (*Steyermark & Rabe 97055*), which is characteristic of the species.

***Cyphomandra meridensis* Pittier ex Steyermark & Rojas, sp. nov.**

Frutex vel arbor 2-5 m.; foliis membranaceis simplicibus vel 3-5-foliolatis, foliis vel foliolis lanceolato-ellipticis vel oblongo-ellipticis, foliolis terminalibus raro orbiculari-plerumque apice longiacuminatis basi obtusis vel rotundatis interdum acutis saepe asymmetricis 9-15 cm. longis 2.5-7 (—9) cm. latis; petiolis 1.5-5 cm. longis glabris vel tomentosis; inflorescentiis simplicibus vel bifidis 3-8-floris,

pedunculo 3-15 cm. longo glabro vel pilosulo; pedicellis glanduloso-puberulentis vel glabris; calyce 2.5-4 mm. longo fructifero non aucto, lobis late apice abrupte acutis 1-2 mm. longis basi 1.5-2 mm. latis extus adpresso-puberulentis; corolla 10-12 mm. longa, lobis oblongo- vel ovato-lanceolatis acutis 6-8 mm. longis 2.5-4 mm. latis extus minute tomentellosis intus glabris; antheris 4 mm. longis glabris; fructibus ovoideis vel elliptico-ovoides 2-3 cm. longis 1.5-2 cm. latis.

Type. VENEZUELA: Estado Mérida: laderas pendientes con selva nublada, adyacente a los saltos del Río La González, debajo de peñascos calcáreos por la carretera Norte de La Mesa, al este de Jají y sureste de La Carbonera, 1900-2100 m., 31 de Agosto 1966, "vining to sprangling shrub; leaves membranous, dark green above, dull green below; corolla creamy-buff with dull lavender within; fruit elliptical-ovate", *Julian A. Steyermark & Marvin Rabe 97055* (Holotype: VEN).

Paratypes:

Estado Mérida: along Río Albarregas, Monte Zerpa, 5-10 kms. northwest of Mérida, 1675-2135 m., 18 April 1944, *Steyermark 55940*; selvas de la Cuesta del Barro y la Cuesta del Trapiche, entre Canaguá y El Molino, 2800-3000 m., 16 May 1944, *Steyermark 55468*; rich wooded slopes along quebrada of Cuesta del Barro and Mesa del Trapiche, tributary to Río Capurí, between Canaguá and El Molino, 2500-2715 m., 11 May 1944, *Steyermark 56468*; entre Los Corrales y Las Cuadras, 1950-3500 m., *Steyermark 55774*; entre La Azulita y La Trampa, 1400-2100, 27 Abril 1944, *Steyermark 56159*; selva nublada, vertiente del Río Capaz, arriba de La Azulita, 2100-2400 m., 1 Sept 1966, *Steyermark & Rabe 97114*.

Solanum mesopliarthrum Bitter *ex* Rojas & Steyermark, *sp. nov.*
(Subgenus *Leptostemonum*, Section *Juripeba*: *Heteracantha*).

Frutex 2-3 m., ramis aculeatis, aculeis rectis vel paullo recurvatis sparsis vel numerosis, pilis stellatis munitis; foliis petiolatis, petiolis saepe aculeatis, laminis membranaceis ovatis vel late ovatis

apice acutis vel acuminatis basi asymmetricis rotundatis subcordatis vel obtusis vel paullo attenuatis 7-24 cm. longis 4-14 cm. latis, marginibus integerrimis vel parce lobulatis, supra rugosis stellato-pubescentibus subtus dense stellato-pubescentibus pilis fulvis instructis, nervo medio interdum aculeato, aculeis rectis vel paullo curvatis; inflorescentiis multifloris dense stellato-pubescentibus inermibus, pedunculo 3-8 cm. longo dense stellato-pubescenti, pilis 0.5-1 mm. longis munitis; calyce 5-fido, laciniis linearibus vel late lanceolatis acutis 4-7 mm. longis 1.5-2 mm. latis extus dense stellato-pubescentibus, pilis elongatis ad 1 mm. longis munitis; corolla 5-fida, laciniis oblongis vel oblongo-lanceolatis 9-12 mm. longis 2-2.5 mm. latis extus dense stellato-pubescentibus, pilis elongatis ad 1 mm. longis munitis; antheris luteis 5-6 mm. longis; ovario hirsuto pilis erectis 1-1.5 mm. longis munitis; bacca pubescenti.

Type. VENEZUELA: Distrito Federal: Sosa, frútice de las cañadas, Marzo 1938, *F. Tamayo 4294* (Holotype: VEN).

Paratypes. VENEZUELA: **Distrito Federal:** Sosa, Octubre 1938, *Tamayo 629*; Galipán, *Hnos. Cristianos 174*; Fila de Agua Negra, *Fernández 204*; selvas del Yagrumal, entre Agua Negra y El Junquito, 1900 m., *Pittier 13725*; entre Las Trincheras y El Copey, camino de Caracas a La Guaira, en lugares áridos, *Pittier 10251*; entre Antímano y Las Adjuntas, en matorrales, *Pittier 12413*; selvas del Avila, Marzo 1937, *Delgado 28*; Avila, *Pittier 13160*; camino antiguo de Caracas a La Guaira, 1300 m., *Pittier 9562*; Los Venados de Galipán, *Cornelio Vogl 1*; Hacienda Sosa (Estación Experimental), El Valle, *Tamayo 457*; seaward-facing north slopes, El Junquito, 1830-2130 m., *Steyermark 56937*; between Portachuelo and Peñita, below junction of Junquito-Colonia Tovar road, 1300-1500 m., *Steyermark 95901*. **Estado Monagas:** forested southwest-facing slopes of Cerro Negro, above La Sabana de Las Piedras, northwest of Caripe, 1.500 m., *Steyermark 61849*. **Estado Falcón:** selva nublada, vecindad del Hotel Parador, al sur de La Tabla, 1400-1500 m., *Steyermark 99025*. **Estado Mérida:** alrededores de Timotes, 2000 m., *Pittier 12647*. **Estado Bolívar:** El Palmar, 100 m., *Williams 12873*.

Of the specimens cited above, Pittier assigned binomials, all unpublished and to be considered as *nomina nuda*, in the Catálogo de la Flora Venezolana, 2nd volume, pages 361-362 and 368-369, 1947, as follows:

Solanum lanugiflorum Pittier (*Pittier 12647* indicated as type).

Solanum lanugiflorum var. *emarginatum* Pittier (*Pittier 13160* indicated as type).

Solanum hypodyschroum Bitter (*Pittier 10251*; *Pittier 12413*), but this number was also cited by Pittier under *S. hypodyschroum*.

Solanum confusum Pittier (*Pittier 13125* indicated as type).

Solanum fraternorum Pittier (*Hnos. Cristianos 174* indicated as type).

All these collections have in common the following characters: 1) mainly entire or slightly lobulate leaves which are densely stellate-pubescent on both sides; 2) mainly obtuse, rounded, or subcordate at the base with the midnerve sometimes aculeate; 3) unarmed, many-flowered inflorescence with a densely stellate peduncle bearing elongate hairs 0.5-1 mm. long; 4) deeply 5-fid calyx with linear lobes densely stellate-pubescent with elongate hairs to 1 mm. long; 5) deeply 5-fid corolla with the lobes densely stellate-pubescent with elongate hairs up to 1 mm. long; 6) ovary with erect hirsute hairs 1-1.5 mm. long, and 7) a small pubescent fruit.

Solanum antillarum O. E. Schulz.

Solanum tovarense Bitter.

We are in agreement with D'Arcy (Ann. Mo. Bot. Gard. 60: 741, 1973) in reducing *Solanum tovarense* Bitter to synonymy under the earlier published *Solanum antillarum*. O. E. Schulz. At first, it might appear that the peduncle averages longer in *Solanum tovarense*, but the length varies between anthesis and fructification.

Solanum gratum Bitter.

Solanum avilense Pittier, *nomen nudum*.

Pittier (Catálogo, 2nd vol., pp. 378 and 382, 1947) proposed the binomial, *Solanum avilense*, indicating *Tamayo 336* from San Isidro de Galipán as type. We are unable to separate this and other specimens similar to *Tamayo 336* from *Solanum gratum* Bitter. The apex of the leaves varies from rounded or obtuse to acute or acuminate in the material examined.

Solanum arboreum H.B.K.

Solanum ripivagum Pittier, *nomen nudum*.

Pittier proposed the binomial, *Solanum ripivagum*, (Catálogo, 2nd vol., pp. 378 and 382, 1947), as distinct in both habit and habitat from *Solanum arboreum*. Again, we are unable to perceive any morphological differences between these taxa. At the same time, we are assigning to *Solanum arboreum* herbarium material identified in VEN as *Solanum nudum* H. & B. ex Dun. and *Solanum micranthum* Willd. ex R. & S.

COMPOSITAE

Eupatorium naiguatensis (Badillo) Steyermark, *comb. nov.*

Steyermarkina naiguatense Badillo, Bol. Soc. Venez. Cienc. Nat, 22: 35. 1976.

Critonia naiguatensis (Badillo) R.M. King & H. Robinson, Phytologia 35 (6): 499. 1977.

I do not find sufficient grounds to maintain *Steyermarkina* as a genus distinct from *Eupatorium*.