

CONTRIBUTIONS TO THE FLORA OF EXTRA-TROPICAL SOUTH AMERICA

IV

By HAROLD N. MOLDENKE

Abbreviations for the names of herbaria in which cited specimens are deposited are the same as explained in the first and second installments of this series of papers, with the two following additions; Ba = L. H. Bailey Hortorium, Ithaca, New York and Kr = B. A. Krukoff Herbarium, New York Botanical Garden, New York City.

SALVINIACEAE

determination by W. R. Maxon

Azolla filiculoides Lam. — URUGUAY: Isla Lobos, dept. Maldonado, January 4, 1941, H. R. Descole 57 [Herb. Inst. Miguel Lillo 35,262] (N).

POLYPODIACEAE

determination by W. R. Maxon

Cheilanthes marginata H. B. K. — ARGENTINA: Tucumán: La Cueva, alt. 2100 m, April 7, 1912, D. Rodríguez 462 [Herb. Inst. Miguel Lillo 17,148] (N), so determined also by C. A. Weatherby in 1939; among rocks, Cuesta de la Ventanita, alt. 1900 m, January 26, 1903, M. Lillo 2941 [Herb. Inst. Miguel Lillo 17,137] (N), so determined also by the collector; Ventanita, Valle de Tafi, February, 1913, Castellón 18 [Herb. Inst. Miguel Lillo 17,157] (N), so determined also by C. A. Weatherby in 1939.

Cheilanthes micropteris Sw. — ARGENTINA: Catamarca: Loma de Choya, dept. Capital, May 17, 1910, Castillon 11,611 [Herb. Inst. Miguel Lillo 17,163] (N), so determined also by C. A. Weatherby in 1939. Misiones: Bonpland, May 9, 1910, D. Rodríguez 349 [Herb. Inst. Miguel Lillo 17,164] (N), so determined also by C. A. Weatherby in 1939.

Cheilanthes myriophylla Desv. — ARGENTINA: Catamarca: Potrero, dept. Ambato, July 12, 1910, Castillon 11,610 [Herb. Inst. Miguel Lillo 17,088] (N), so determined also by C. A. Weatherby in 1939. Jujuy: Hualchin, alt. 3000 m, Maimara, January 17, 1921, Budin 11,831 [Herb. Inst. Miguel Lillo 17,201] (N). Tucumán: Tacanas, Valle de Tafi, alt. 2040 m, December 12, 1912, Castillon 9 [Herb. Inst. Miguel Lillo 17,106] (N), so determined also by C. A. Weatherby in 1939.

Cheilanthes Poeppigiana Mett. — ARGENTINA: Tucumán: growing on slopes, La Lagunita, alt. 2200 m, April 8, 1921, D. Rodríguez 480 [Herb. Inst. Miguel Lillo 17,115] (N), so determined also by C. A. Weatherby in 1939.

Cheilanthes pruinata Kaulf. — ARGENTINA: Tucumán: dept. Tafi, 1912, Castillon 11,539 [Herb. Inst. Miguel Lillo 17,051] (N), so determined also by C. A. Weatherby in 1939; Cumbre de Anfama, alt. 2500 m, dept. Tafi, March 9, 1919, Schreiter 521 [Herb. Inst. Miguel Lillo 17,053] (N), so determined also by C. A. Weatherby in 1939. BOLIVIA: Cochabamba: Bucona, alt. 3000 m, prov. Totora, March 29, 1920, J. Steinbach 3963 [Herb. Inst. Miguel Lillo 17,059] (N), so determined also by the collector.

Cheilanthes sp. — BOLIVIA: Cochabamba: in wet quebrada, Bucona, alt. 2200 m, prov. Totora, March 19, 1920, J. Steinbach 3956 [Herb. Inst. Miguel Lillo 17,160] (N), determined as *C. marginata* Kth. by the collector.

Notholaena aurea (Poir.) Desv. — ARGENTINA: Tucumán: Amaicha, El Molle, dept. Tafi, December 20, 1912, alt.

2740 m, Castillon 2273 [Herb. Inst. Miguel Lillo 16,924] (N), so determined also by C. A. Weatherby in 1939; Escaba, alt. 2400 m, Río Chico, December 27, 1913, L. Monetti 1851 [Herb. Inst. Miguel Lillo 16,923] (N), so determined also by C. A. Weatherby in 1939; Cumbre de Anfama, alt. 2500 m, dept. Tafi, March 9, 1919, Schreiter 720 [Herb. Inst. Miguel Lillo 1954] (N), so determined also by C. A. Weatherby in 1939; Amaicha, El Molle, dept. Tafi, December 20, 1912, Castillon 38 [Herb. Inst. Miguel Lillo 16,921] (N), so determined also by C. A. Weatherby in 1939; Valle de Tafi, El Pelado, alt. 2080 m, dept. Tafi, December 5, 1912, Castillon 33 [Herb. Inst. Miguel Lillo 16,922] (N), so determined also by C. A. Weatherby in 1939; Bajo de Anfama, alt. 1600 m, dept. Tafi, June 8, 1906, M. Lillo 5061 [Herb. Inst. Miguel Lillo 16,925] (N), so determined also by C. A. Weatherby in 1939; in barranca, Tafi, alt. 2100 m, dept. Tafi, April 12, 1904, M. Lillo 3553 [Herb. Inst. Miguel Lillo 1952] (N). BOLIVIA: Cochabamba: Bucona, alt. 2800 m, prov. Totora, March 29, 1929, J. Steinbach 3960 [Herb. Inst. Miguel Lillo 1963] (N), determined by the collector as «*N. bonariensis* (W.) C. Chris.»

Notholaena Buchtienii Rosenst. — ARGENTINA: Catamarca: Ambato, Quebrada Nacimiento, El Potrero, April 14, 1910, Castillon s. n. [Herb. Inst. Miguel Lillo 16,934] (N), so determined also by C. A. Weatherby in 1939; Andalgalá, December 20, 1914, P. Jörgensen 1235 [Herb. Inst. Miguel Lillo 17,082] (N), label states that this was determined as *Cheilanthes myriophylla* Desv. by C. A. Weatherby in 1939, but it probably is a case of mixed or crossed labels. Tucumán: Escaba, alt. 600 m, dept. Río Chico, December 6, 1913, L. Monetti 1661 [Herb. Inst. Miguel Lillo 16,936] (N), so determined also by C. A. Weatherby in 1939.

Notholaena obducta (Mett.) Bak. — ARGENTINA: Catamarca: Quebrada del Nacimiento, May 1910, L. Castillon 11,621 [Herb. Inst. Miguel Lillo 17,007] (N), so determined also by

C. A. Weatherby in 1939. Tucumán: Barranca Colorada, alt. 650 m, April 29, 1939, S. Venturi 846 [Herb. Inst. Miguel Lillo 17,006] (N), so determined also by C. A. Weatherby in 1939.

Notholaena sinuata (Lag.) Kaulf. — ARGENTINA: Jujuy: Hualchin, alt. 3000 m, dept. Maimará, January 20, 1912, Budin 11,828 [Herb. Inst. Miguel Lillo 17,031] (N). Tucumán: Vipos, dept. Trancas, March 25, 1908, M. Lillo 7940 [Herb. Inst. Miguel Lillo 16,997] (N), so determined also by C. A. Weatherby in 1939.

Notholaena squamosa (Gill.) Lowe. — ARGENTINA: Jujuy: Hualchin, alt. 3000 m, dept. Maimará, January 17, 1912, Budin s. n. [Herb. Inst. Miguel Lillo 16,990] (N), so determined also by C. A. Weatherby in 1939. Tucumán: La Queñoa, alt. 2600 m, dept. Tafi, March 13, 1912, D. Rodríguez 414 [Herb. Inst. Miguel Lillo 16,988] (N), so determined also by C. A. Weatherby in 1939.

Polypodium argentinum Maxon. — ARGENTINA: Tucumán: Lara, alt. 3200 m, February 11, 1912, D. Rodríguez 317 [Herb. Inst. Miguel Lillo 16,673] (N), so determined also by Alston in 1938.

Polypodium aureum L. — ARGENTINA: Tucumán: Quebrada de Tafi, alt. 1000-1500 m, December, 1917, Schreiter 514 [Herb. Inst. Miguel Lillo 16,679] (N), so determined also by Alston in 1938.

Polypodium chrysolepis Hook., sens. lat. — ARGENTINA: Tucumán: La Ventanita, February, M. Lillo 11,534 [Herb. Inst. Miguel Lillo 16,713] (N), so determined also by Alston in 1938; La Ventanita, Valle del Tafi, 1912, L. Castillon s. n. [Herb. Inst. Miguel Lillo 16,714] (N), so determined also by Alston in 1938.

POACEAE

determinations by Agnes Chase

Cortaderia Selloana (Schult.) Asch. et Graebn. — BOLIVIA: Santa Cruz: Quebrada del Río Blanco, Cerro Hosana, alt. 1300 m, August 12, 1917, J. Steinbach 3372 [Herb. Inst. Miguel Lillo 35,005] (N), so determined also at Berlin.

Pennisetum bambusiforme (Fourn.) Hemsl. — BOLIVIA: Santa Cruz: banks of the Río Blanco, Cerro Hosana, alt. 1300 m, August 18, 1917, J. Steinbach 3379 [Herb. Inst. Miguel Lillo 35,006] (N), plants about 2 m tall, determined as *P. tristachyum* (Kth.) var. *bambusiforme* (Hemsl.) Leeke at Berlin.

BROMELIACEAE

determinations by L. B. Smith

Aechmea distichantha Lem. var. **Schlumbergeri** E. Morr. ex Mez — ARGENTINA: Chaco: Enrique Urien, Campo Bonazola, dept. Tapenaga, November 1940, A. P. Rodrigo 2567 (N), flowers rose and blue.

Tillandsia capillaris R. et P. — ARGENTINA: Catamarca: Quebrada del Tala, dept. Capital, September 6, 1910, L. Castillon s. n. [Herb. Inst. Miguel Lillo 34,680] (N). Tucumán: Quebrada del Duraznillo, alt. 1800 m, dept. Tafí, October 6, 1924, Schreiter 3320 [Herb. Inst. Miguel Lillo 34,684] (N), plantas epiphytic, flowers yellow.

LILIACEAE

determination by J. Monachino

Herrera Bonplandii H. Lecomte (fide *Bull. Soc. Bot. France* 56; 346-347. 1909). — ARGENTINA: Santa Fe: highway from Reconquista to Dr. Barros Pazos, January-February, 1936, M. M. Job 836 (N), leaves about 1 mm broad gradually acuminate to a very fine bristle-like tip.

URTICACEAE

determinations by E. P. Killip

Boehmeria caudata Sw., sens. lat. — ARGENTINA: Jujuy: Yala a Reyes, alt. 1450 m, dept. Capital, January 28, 1940, Schreiter 11,163 [Herb. Inst. Miguel Lillo 33,314] (N), flowers greenish.

Urera caracasana (Jacq.) Griseb., form. — ARGENTINA: Salta: Tartagal a las Tablillas, alt. 500 m, dept. Orán, February 13, 1940, Schreiter 11,162 [Herb. Inst. Miguel Lillo 33,313] (N), flowers white.

SANTALACEAE

determination by J. Monachino

Acanthosyris falcata Griseb. — ARGENTINA: Salta: El Tabacal, dept. Orán, November 8, 1913, D. Rodríguez 1100 (N).

POLYGONACEAE

determinations and notes by J. Monachino

Ruprechtia corylifolia Griseb. — ARGENTINA: Córdoba: Cerro Azul, dept. Colón, February 3, 1939, L. A. Dawson 17 (N).

Ruprechtia viraru Griseb. — ARGENTINA: Tucumán: El Potrerillo, highway to Rio Cochuna, alt. 1000 m, dept. Chichigasta, November 24, 1938, Schreiter et O'Donell s. n. [Herb. Inst. Miguel Lillo 35,380] (N), tree 8 m, tall, called «virarú»; El Sauce, alt. 750 m, dept. Burruyacu, November 15, 1937, Peirano s. n. [Herb. Inst. Miguel Lillo 35,382] (N), called «virarú». The Schreiter et O'Donell specimen is pistillate — the rachis is at first pubescent, then becoming only sparsely hairy or even glabrous; the 3 inner perianth-parts or appendages are narrowly lanceolate, much smaller than the outer calyx-lobes, and remain, upon the development of the outer series, about 1/4 the length of the achenes and appressed to their faces; the conspicuous

calyx-lobes develop to about 2 cm long, oblanceolate-spatulate, and with 3 main nerves and very fine reticulation; the achenes are about 7 mm long, brown, and sharply 3-sided. — The Peirano specimen is staminate — the rachis is at first pubescent and then becomes only sparsely hairy or even glabrous; the flowers are many but rather loosely distributed on their inflorescence-axis, usually two arising from each bract; the pedicels are 2-3 mm long and articulate at about the middle or below; the calyx is glabrous, with an indefinite number of lobes (6-8), which are 2-3 mm long, imbricate, broadly elliptic, rounded at the apex, and sparsely ciliate; the center of the flower has some long hairs and often the very much reduced ovary does, too; the filaments of the stamens, also indefinite in number, are equal to or longer than the sepals, terete, broadest at the base, and gradually narrowed upwards to the versatile anthers.

PHYTOLACCACEAE

determination by J. Monachino

Hillieria latifolia (Lam.) H. Walt. — ARGENTINA: Salta: Quebrada de Capiasuti-Aguaray, dept. Orán, alt. 500 m, February, 1940, Schreiter 11,225 [Herb. Inst. Miguel Lillo 34,374] (N), flowers pinkish-white.

AIZOACEAE

determinations by J. Monachino

Glinus radiatus (R. et P.) Rohrb. — ARGENTINA: Corrientes: banks of the Río Paraná, 6 km. north of Capital, November, 1936, A. P. Rodrigo 932 (N).

Sesuvium portulacastrum L. — ARGENTINA: Mendoza: Llaville, March 15, 1940, G. Dawson 960 (N).

ALSINACEAE

determinations by J. Monachino

Drymaria cordata (L.) Will. — ARGENTINA: Catamarca: Andean region, Collector undesignated s. n. (N), so determined also by A. P. Rodrigo. Salta: Las Juntas, 1898, C. Bruch s. n. (N), so determined also by A. P. Rodrigo. Tucumán: Valle de Tafi, 1908, C. Bruch s. n. (N), so determined also by A. P. Rodrigo; Pie de la Cuesta, alt. 1700 m, dept. Trancas, April 20, 1926, S. Venturi 4421 (N), flowers white. BOLIVIA: Cochabamba: alt. 2700 m, April 16, 1920, J. Steinbach 4011 [Herb. Inst. Miguel Lillo 16,568] (N). Santa Cruz: alt. 450 m, prov. Sara, April 8, 1916, J. Steinbach 1922 [Herb. Inst. Miguel Lillo 16,582] (N).

MENISPERMACEAE

Cissampelos pareira var. **australis** (St. Hil.) Diels — ARGENTINA: Misiones: In thickets, Bonpland, Posadas, January 11, 1908, E. L. Ekman 1518 (N), determined as «*C. pareira* L. v. *australis* St. Hil.» by L. Diels. Salta: Alemania, alt. 1170 m, dept. Guachipas, January 14, 1941, T. Meyer 3590 [Herb. Inst. Miguel Lillo 35,730] (N), climbing to 2 m, flowers green.

Cissampelos pareira var. **tamoides** (Willd.) Diels — ARGENTINA: Tucumán: Capital, alt. 480 m, dept. Capital, November 17, 1940, T. Meyer 3916 [Herb. Inst. Miguel Lillo 17,398] (N), determined by the collector as «*Cissampelos pareira* var.». .

Cissampelos tropaeolifolia P. DC. — BOLIVIA: Santa Cruz: Sierra de Santa Cruz, alt. 1000 m, May, 1892, O. Kuntze s. n. (N), determined as *C. pareira* var. *racemiflora* Eichl. by the collector.

Hyperbaena domingensis (P. DC.) Benth. — BOLIVIA: Santa Cruz: alt. 1500 m, August 9, 1917, J. Steinbach 3354

[Herb. Inst. Miguel Lillo 16,537] (N), in flower, distributed by the collector as « *Hyperbaena domingensis* (DC.) ».

Hyperbaena Hassleri Diels — BOLIVIA: Santa Cruz: Buena Vista, September 1, 1915, J. Steinbach 1607 [Herb. Inst. Miguel Lillo 16,536] (N), so determined also by the collector.

POLYGALACEAE

determinations and notes by J. Monachino

Polygala arguensis A. W. Bennett — ARGENTINA: Salta: Campo Chico, alt. 550 m, Orán, November, 1927, S. Venturi 5531 (N-2), flowers white, « a good match for Thomas Morong 944 from Paraguay, named by A. W. Bennett, but probably not distinct from the narrower-leaved *P. mulluginifolia* St. Hil. »

Polygala boliviensis A. W. Bennett — ARGENTINA: Jujuy: Humahuaca, alt. 2800 m, Sierra de Zenta, February, 1929, S. Venturi 8298 (N-2), flowers purple.

Polygala chloroneura Griseb. — ARGENTINA: Salta: Peñas Blancas, Sierra del Cajón, March 15, 1914, D. Rodríguez 4040 (N); Candado, December, 1896, C. Bruch s. n. (N), so determined also by A. P. Rodrigo. Tucumán: Tafi del Valle, alt. 2500 m, dept. Tafi, February, 1924, S. Venturi 2928 (N), flowers white, « form with stems puberulent with short crisped hairs ».

EUPHORBIACEAE

determinations and notes on *Disopsis* by J. Monachino ;
remainder by L. Croizat

Chamaesyce Lorentzii (Müll. Arg.) Croiz., comb. nov. (*Euphorbia Lorentzii* Müll. Arg. in *Journ. Bot.* 12: 231, 1874) — ARGENTINA: Jujuy: La Quiaca, dept. Yavi, alt. 3450 m, February 15, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 34,215] (N); Tilcara, alt. 3480 m, dept. Tilcara, Februa-

ry 6, 1940, T. Meyer 3141 [Herb. Inst. Miguel Lillo 33,457] (N). These two specimens fall within the specific limits of *C. Lorentzii*, as this binomial is represented by: Galander s. n. [4. iii. 1887, Córdoba] (in herb. N. Y. Bot. Gard.). I find it very nearly impossible to separate this entity from classic specimens of *C. indica* (Lám.) Croiz. (*Euphorbia indico* Lam.). The differences found in herbarium material that belongs to this affinity are altogether slim and of such a nature that, in the normal run of these forms, they occur as between apparently conspecific specimens. It is probable that the Argentine plant can not be distinguished otherwise than as a geographic species. As it is well known, *E. brasiliensis* and *E. indica* of the authors are a mixture of various biological and ecological forms, all often treated under the same binomial, which is not without its justification on morphological grounds. What may be suspected is that around the form known as *E. brasiliensis* auct. local segregations have taken place, some giving Argentine (*C. Lorentzii*), others African and Far Eastern forms (*E. indica* auct.). The problem is one that will have to be studied, but nothing can be done without Müller's holotype of *C. Lorentzii*, which is not now available. In my previous treatment of these forms for the Krukoff Herbarium I have pointed out that the plants from Argentina are hardly extricable from the Indian binomial. A full revision will have to be undertaken at the proper time.

Dysopsis glechomoides (Rich.) Müll. Arg. — CHILE: Valdivia: Puñire, alt. about 300 m, February, 1927, P. A. Hollermayer s. n. [E. Werderman 1387] (N), «a rather hirsute form.»

Julocroton serratus Müll. Arg. — ARGENTINA: Tucumán: Pozo, F. C. C. A., alt. 420 m, dept. Leales, December 5, 1938, Descole & Schreiter 10,768 [Herb. Inst. Miguel Lillo 35,065] (N), flowers cream-colored.

SAPINDACEAE

determination and notes by J. Monachino

Alvaradoa amorphoides Liebm. var. **puberulenta** Monachino,
var. nov.

*Haec varietas a forma typica speciei recedit rhachide pedicellis-
que puberulentis, pedicellis brevioribus, fructibus ca. 10 mm longis
5 mm latis ad basin rotundatis.*

This variety differs from the typical form of the species principally in the inflorescence, which has the rachis and pedicels merely puberulent instead of villous; the pedicels average shorter being approximately 5 mm long; the samaras are about 10 mm long and 5 mm wide, rounded at the base; the leaves are up to 3 cm long and 1 cm wide, more shiny above and not as pale beneath as in the typical form. — ARGENTINA: Tucumán: Las Cuchillas, alt. 1200 m, Cuchilla de la Brúyula, January 10, 1903, M. Lillo 2903 [Herb. Inst. Miguel Lillo 6581] (N-tipe), originally determined as *A. amorphoides* Liebm. by the collector.

MALVACEAE

determinations and notes by J. Monachino

Cienfuegosia argentina Gürcke, near to var. **Hasslerana** (Hochr.) Hassler — ARGENTINA: Santiago del Estero: in sandy ground, Turena, dept. Robles, November 27, 1939, R. Maldonado B. 241 (N), flowers yellow, coffee-colored in center, «this is a glabrous form.»

STERCULIACEAE

determination by J. Monachino

Buettneria filipes Mart. et K. Schum. — ARGENTINA: Corrientes: island opposite the port of Esquina, December, 1936, A. P. Rodrigo 960 (N), tree

Pouteria salicifolia (Spreng.) Radlk. — ARGENTINA: Corrientes: woods of Pay-ubre Grande, Mercedes, November, 1936, A. P. Rodrigo 712 (N), tree 4-5 m, tall, very abundant, staminate flowers greenish, with 5 stamens. The synonymy of the typical form of this species is as follows: *Roussea salicifolia* Spreng., Syst. 1: 419. 1825. — *Labatia salicifolia* Mart., Flora 21: 11, Beibl. 92. 1838. — *Lucuma Sellowii* A. DC. in P. DC., Prodr. 8: 167. 1844. — *Pouteria salicifolia* Radlk., Sitzb. Math.-Phys. Akad. Muench. 12: 333. 1882. — *Pouteria Sellowii* (A. DC.) Engl., Bot. Jahrb. 12: 514. 1890.

Pouteria salicifolia var. *neriifolia* (Hook. et Arn.) Monachino, comb. nov. — ARGENTINA: Isla Martín García: dunes, October, 1934, A. C. Cabrera 2867 (N). The synonymy of this variety is as follows: *Lucuma neriifolia* Hook. et Arn. in Hook., Journ. Bot. 1: 282, 1834. — *Pouteria neriifolia* Radlk., Sitzb. Math.-Phys. Akad. Muench. 12: 333. 1882.

LOGANIACEAE

determination by L. B. Smith

Buddleja cordobensis Griseb. — ARGENTINA: Jujuy: Cerro Negro, alt. 4000 m, dept. Yavi, February 28, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 33,751] (N).

APOCYNACEAE

determination and notes by J. Monachino

Rauwolfia boliviana Mgf. — ARGENTINA: Jujuy: San Pedro, alt. 750 m, Sierra Santa Bárbara, October 12, 1929, S. Venturi 9634 (N), tree 4-5 m. tall, 30 cm in diameter, flowers white, «det. ex descrip. Repert. Sp. Nov. Fedde 20: 122 (1924) and photograph of the type. This species is characteristic in its long-acuminate calyx-lobes. Grisebach in his *Symbolae ad Floram Argentinam*, page 224, number 1385 (1879) states under *Rauwolfia Sellowii* Müll. Arg. 'O.: Tarija, pr. Buyuyu' [i. e., Buyuyu, dep. Orán,

near Tarija]. He adds 'ex descr., a qua nonnisi recedit calycis segmentis subulatis (nec rotundato-obtusis)'. The type of *R. boliviana* is Hieronymus & Lorentz 962 from Buyuyu, det. Griseb. Symb., which apparently is the same plant cited in Grisebach's Symb. Fl. Arg. »

HYDROPHYLLACEAE

Marilaunidium determinations and notes by J. Monachino;
Phacelia by L. Constance

Marilaunidium jamaicense (L.) Kuntze — ARGENTINA: Córdoba: Córdoba, December, 1891, O. Kuntze s. n. (N), « determined by the collector and cited by him in his *Rev. Gen. Pl.*, 32: 238 (1898) as '*Pyxidaria diffusa* (L.) O. K. f. *pilosior* O. Ktze' and is probably the type specimen of this trinomial, which, therefore, becomes a synonym of *Marilaunidium jamaicense*. The Kuntze specimen cannot possibly be conspecific with *Vandellia diffusa* L. [*Pyxidaria diffusa* (L.) Kuntze] because of such obvious differences as its alternate entire leaves and alate stem, besides those technical flower-characters that place it in the *Hydrophyllaceae* instead of the *Scrophulariaceae* ». Salta: El Cedral, Orán, November 20, 1913, D. Rodríguez s. n. (N), flowers white.

Phacelia boliviana Brand. — ARGENTINA: Jujuy: Tilcara, alt. 2480 m, dept. Tilcara, February 10, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 34,171] (N), plants creeping, flowers whitish-lilac.

VERBENACEAE

Acantholippia deserticola (R. A. Phil.) Moldenke.

Acantholippia salsoloïdes Griseb., *Abh. K. Gesell. Wiss. Götting.* 19: 244. 1874.

Lippia riojana Hieron. ex Moldenke, *Lilloa* 5: 370, in syn, 1940.

Acantholippia riojana Hieron., in herb.

ARGENTINA: Catamarca: Laguna Blanca, alt. 10,000 feet, P. G. Lorentz 457 [Macbride photos 17,540] (Kr-photo), type co-

lection of *A. salsoloides*. La Rioja : Vinchina, March 5, 1879, G. Hieronymus & G. Niederlein s. n. [Macbride photos 17,536] (Kr-photo), determined by the collectors as « *Acantholippia riojana* Hieron., n. sp. mss. ».

CHILE : Atacama : R. A. Philippi s. n. [Macbride photos 17,501] (Kr-photo of isotype), determined by the collector first as « *Verbena deserticola* Phil. » and then as « *Lippia deserticola* Phil. ».

Acantholippia hastulata Griseb. This binomial was first published by Grisebach in *Abh. K. Gesell. Wiss. Götting.* 24 : 279 (1879), not in « 19 : 244. 1874 » as erroneously stated in *Lilloa* 5 : 370. 1940.

ARGENTINA : Jujuy : alt. 3.000 m, dep. Humahuaca, January 22, 1940, Schreiter 11,126 [Herb. Inst. Miguel Lillo 34,420] (N), plants 60 cm tall, flowers white ; San José de Tilcara, P. G. Lorentz & G. Hieronymus 713 [Macbride photos 17,511] (Kr-photo of type). Los Andes : San Antonio de los Cobres, alt. 3500 m, dept. Capital, January 17, 1941. T. Meyer 3445 [Herb. Inst. Miguel Lillo 35,568] (N), 1 m tall, flowers white, called « rica-rica ».

Acantholippia seriphiodes (A. Gray) Moldenke — ARGENTINA : Mendoza : R. A. Philippi s. n. [Macbride photos 17,507] (Kr-photo), type collection of *Lippia foliolosa* R. A. Phil. This is cited to « Chili » by error in the « Index Kewensis ».

Acantholippia trifida (C. Gay) Moldenke. — CHILE : 1834 to 1842, C. Gay s. n. [Macbride photos 24,673] (Kr-photo), originally distributed as « *Lippia trifida* Clos ».

Aloysia Fiebrigii (Hayek) Moldenke. — BOLIVIA : Tarija : Paccha, alt. 3000-3200 m, western Tarija, April 2, 1904, K. Fiebrig 3036 [Macbride photos 17,504] (Kr-photo of cotype).

Aloysia ligustrina (Lag.) Small. — ARGENTINA : Salta : Campo Quijano, alt. 1200 m, dept. Rosario de Lerma, January 18, 1941, T. Meyer 3450 [Herb. Inst. Miguel Lillo 35,566] (N), shrub 2,5 m tall, flowers white.

Aloysia Meyeri Moldenke — ARGENTINA: Salta: Coronel Moldes, alt. 1100 m, dept. La Viña, January 31, 1941, T. Meyer 3727 [Herb. Inst. Miguel Lillo 35,474] (N), shrub 1,5 m tall, flowers white, so determined also by the collector.

Aloysia polystachya (Griseb.) Moldenke. — ARGENTINA: Córdoba: found in the valley of the Río Primero and Costa de las Mallas, by Las Peñas, January, 1871, P. G. Lorentz 130 [Macbride photos 17,535] (Kr-photo of type), called «poleo de Castillo», valuable as a tonic, growing in only a very few spots.

Aloysia Reichii Moldenke.

Lippia floribunda R. A. Phil., *Verz. Hoch. Prov. Antofag. Pfl.* 59. 1891 [not *L. floribunda* H. B. K., *Nov. Gen. et Sp. Pl.* 2: 267-268. 1818, nor *L. floribunda* Briq., *Ann. Conserv. et Jard. Bot. Genève.* 4: 237. 1900].

CHILE: Tarapacá: R. A. Philippi s. n. [Macbride photos 17,505] (Kr-photo), type collection of *Lippia floribunda* R. A. Phil.

Aloysia salviaefolia (Hook. et Arn.) Moldenke. — CHILE: Coquimbo: C. Gay s. n. [Macbride photo 24,647] (Kr-photo), cotype collection of *Lippia chilensis* Schau.

Aloysia Schulziana Moldenke. — ARGENTINA: Salta: Cerrillos, alt. 1260 m, dept. Cerrillos, March 10, 1941, T. Meyer 3732 [Herb. Inst. Miguel Lillo 35,479] (N), 2 m tall, flowers white.

Aloysia Sellowii (Briq.) Moldenke.

Lippia Grisebachii Lorentz et Hieron., in herb.

ARGENTINA: Salta: Mojotoro, dept. Caldera, January 11, 1941, T. Meyer 3457 [Herb. Inst. Miguel Lillo 35,573] (N), shrub 2 m tall, flowers white. Tucumán: January 7, 1873, P. G. Lorentz & G. Hieronymus 1115 [Macbride photos 17,510] (Kr-photo), determined by the collectors as «*Lippia Grisebachii* Lorentz & Hieron. n. sp.». — URUGUAY: Montevideo, Sellow

1744 [Macbride photos 24,670] (Kr-photo of type), type collection also of *Lippia affinis* Briq.

Aloysia virgata (Ruíz et Pav.) A. L. Juss. — ARGENTINA: Chaco: Colonia Benítez, alt. 55 m, February, 1941, T. Meyer 3723 [Herb. Inst. Miguel Lillo 35,470] (N), 3 m, tall, so determined also by the collector.

Castelia cuneato-ovata Cav. — ARGENTINA: Jujuy: Yavi Chico, alt. 3420 m, dept. Yavi, March 6, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 34,399] (N), flowers purplish-white, perfumed; Caspala, alt. 3000 m, dept. Humahuaca, March 24, 1929, S. Venturi 8594 (E), flowers rose. Salta: Coronel Moldes, alt. 1100 m, dept. La Viña, January 31, 1941, T. Meyer 3883 [Herb. Inst. Miguel Lillo 35,686] (N), erect, 30 cm tall, flowers white.

Citharexylum andinum Moldenke. — BOLIVIA: Mandon 1493 [Macbride photos 28,393] (Kr-photo of isotype).

Citharexylum Jörgenseni (Lillo) Moldenke. — ARGENTINA: Jujuy: 1913, Schuel 197 [Macbride photos 34,315] (F-photo), originally determined as *C. xenicum* Moldenke.

Citharexylum mendocinum R. A. Phil., *Anal. Univ. Chil.* 35: 193-194 [as *Citharexylon*?]. 1870. — BOLIVIA: Cochabamba: Higuerita, alt. 2500 m, prov. Totora, March 27, 1920, J. Steinbach 3889 [Herb. Inst. Miguel Lillo 35,117] (N).

Citharexylum montevidense (Spreng.) Moldenke. — ARGENTINA: Entre Ríos: Arroyo Brazo Largo, Delta Paraná, March 26, 1937, A. Burkart 8315 (F), tree, drupes red. URUGUAY: Rincón de Arazati, San José, March 24, 1935, D. Legrand 508 (F), called «tarumán».

Citharexylum myrianthum Cham. — PARAGUAY: K. Fiebrig 596 [Macbride photos 17,596] (Kr-photo), type collection of *C. macranthum* Hayek; central Paraguay, 1888-1890, T. Morong 830 (F).

Citharexylum punctatum Greem. — BOLIVIA: M. Bang 1917 (F-2 isotypes).

Citharexylum rigidum (Briq.) Moldenke. — PARAGUAY: Balansa 2090 (F-fragment of isotype).

Duranta serratifolia (Griseb.) Kuntze. — ARGENTINA: Jujuy: Yala, alt. 1450 m, dept. Capital, January 27, 1940, Schreiter 11,124 [Herb. Inst. Miguel Lillo 34,415] (N), shrub to 4 m tall, in fruit. Salta: Campo Quijano, alt. 1500 m, Rosario de Lerma, January 16, 1929, S. Venturi 8071 (E), shrub 2 m tall, flowers rose; Campo Quijano, alt. 1200 m, dept. Rosario de Lerma, January 23, 1941, T. Meyer 3862 [Herb. Inst. Miguel Lillo 17,336] (N), tree 3-4 m tall, flowers blue, called «tala blanca». Tucumán: Cochuna, dept. Chichigasta, March 4, 1941, C. O'Donell 57 [Herb. Inst. Miguel Lillo 36,195] (N); infrequent in mountain woods near Siambón, P. G. Lorentz 491 [Macbride photos 17,571, in part] (Kr-photo of type), type collection also of *D. Lorentzii* Griseb.; Cuesta de la Yerba Huasi between Lules and El Potrero de Las Tablas, Sierra de Tucumán, January 11, 1873, P. G. Lorentz & G. Hieronymus 995 [Macbride photos 17,571, in part] (Kr-photo).

Junellia bisulcata (Hayek) Moldenke, comb. nov.

Verbena bisulcata Hayek in *Engl., Bot. Jahrb.* 42: 164. 1908.

BOLIVIA: Potosí: Puna Patanca, in sandy and stony terrain with very sporadic vegetation, alt. 3700 m, January 6, 1904, K. Fiebrig 2473 [Macbride photos 17,404] (Kr-photo of type), dwarf shrub 30-40 cm tall, with light-violet to whitish flowers.

Junellia bryoides (R. A. Phil.) Moldenke. — CHILE: Atacama: R. A. Philippi s. n. [Macbride photos 17,405] (Kr-photo of cotype).

Junellia connatibracteata (Kuntze) Moldenke. — ARGENTINA: Mendoza: Arroyo de los Papagayos, alt. 1650 m, Paso Cruz, 34°, Cordilleras, January, 1892, O. Kuntze s. n. [Macbride photos 17,410] (Kr-photo of cotype).

***Junellia digitata* (R. A. Phil.) Moldenke, comb. nov.**

Verbena digitata R. A. Phil., *Anal. Mus. Nac. Chile*, 1891 : 59. 1891.

ARGENTINA : Tucumán : Las Lagunas, January 30, 1935, A. Castellanos s. n. [Herb. Mus. Argent. Cienc. Nat. 14,808] (N), previously determined by me as *Verbena digitata*. CHILE : Antofagasta : región of Lullaillaco, south Socompa, February 3, 1901, K. Reiche [Herb. Mus. Nac. Santiago] 13 (N), previously determined by me as *Verbena digitata*. Atacama : desert of Atacama, R. A. Philippi s. n. [Macbride photos 17,412] (Kr-photo).

Junellia diversifolia* (Kuntze) Moldenke. — ARGENTINA : Mendoza : Paso Cruz, 34°, alt. 2000 m, O. Kuntze 5 [Macbride photos 17,413] (Kr-photo of isotype).**Junellia Echegarayi* (Hieron.) Moldenke.**

Verbena ourostachya Briq., *Ann. Conserv. et Jard. Bot. Genève*. 4 : 20-21. 1900.

ARGENTINA : Mendoza : transandine station, alt. 1400 m, south Mendoza, E. Wilczek 51 [Macbride photos 24,695] (Kr-photo), cotype collection of *Verbena ourostachya*. Río Negro : vicinity of General Roca, alt. 250-360 m, September, 1914, to February, 1915, W. Fischer 89 (K, N, Ur), originally distributed as *Verbena diversifolia* Kuntze, previously identified and cited by me in *Lilloa* 5 : 393 (1940) as *Junellia aspera*.

***Junellia hystrix* (R. A. Phil.) Moldenke, comb. nov.**

Verbena hystrix R. A. Phil., *Anal. Univ. Chil.* 90 : 610-611. 1895.

CHILE : Atacama : Acerillos, Villanueva, desert of Atacama, R. A. Philippi s. n. [Macbride photos 17,406] (Kr-photo of isotype).

***Junellia intricata* (Briq.) Moldenke, comb. nov.**

Verbena intricata Briq., *Ann. Conserv. et Jard. Bot. Genève*. 4 : 16-17. 1900.

ARGENTINA : Mendoza : mountain pass to the mines of Las Choicas, upper part of valley of the Río Tordillo, alt. about

3200 m, E. Wilczek 48 [Macbride photos 24,689] (Kr-photo of type).

Junellia juniperina (Lag.) Moldenke. — ARGENTINA: Catamarca: Belén, alt. 2000 m, January, 1939, T. Meyer 3369 (N).

Junellia lavandulaefolia (R. A. Phil.) Moldenke. — CHILE: Curicó: R.A. Philippi s. n. [Macbride photos 17,426] (Krphoto).

Junellia Lorentzii (Niederlein) Moldenke.

Verbena inconcinna Briq., *Ann. Conserv. et Jard. Bot. Genève* 4: 19-20. 1900.

ARGENTINA: Jujuy: Tilcara, alt. 2461 m, dept. Tilcara, February 9, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 34,408] (N), woody plant to 50 cm tall, flowers white, perfumed. Mendoza: Cerro Mango, entrance to valley of Rio Atuel, alt. 1800-2000 m, E. Wilczek 49 [Macbride photos 24,688] (Kr-photo), type collection of *Verbena inconcinna*. Río Negro: P. G. Lorentz & G. Niederlein s. n. [Macbride photos 17,428] (Kr-photo of type), called « matorro moro ».

Junellia minutifolia (R. A. Phil.) Moldenke. — CHILE: R. A. Philippi s. n. [Macbride photos 17,433] (Kr-photo), originally distributed as « *Verbena Morenonis* O. Ktz. » Linares: R. A. Philippi 780 [Macbride photos 17,453] (Kr-photo), determined by the collector as « *Verbena tymoides* Phil. »; Cordillera de Linares, R. A. Philippi s. n. [Macbride photos 17,437] (Kr-photo), determined by the collector as « *Verbena microphylla* Phil. » and by Kuntze as « *Verbena Philippiana* Kuntze », who notes « auch in Patagonien, Rev. Gen. iii. 257 »; Cordillera de Linares, R. A. Philippi s. n. collection [Macbride photos 24,692] (Kr-photo of isotype), type also of *Verbena microphylla* R. A. Phil.

Junellia nubigena (Speg.) Moldenke.

Verbena punctulata Hieron., in herb.

ARGENTINA: La Rioja: Cuesta del Torina, Sierra Famatina, G. Hieronymus 686 [Macbride photos 24,697] (Kr-photo), deter-

mined by the collector as « *Verbena punctulata* Hieron., n. sp. ind. ».

***Junellia pseudo-junceae* (C. Gay) Moldenke, comb. nov.**

Verbena pseudo-junceae C. Gay, *Fl. Chil.* 5: 19. 1876.

Verbena pseudo-junceae Clos, in herb.

CHILE: Coquimbo: Ovalle, Hurtado, La Higuera, etc., C. Gay 340 [Macbride photos 34,696] (Kr-photo of cotype); Ovalle, Cordillera Andina de Río Hurtado, alt. 3000 m, January, 1933, J. Tribarren s. n. [G. Looser 4001] (N), previously determined by me as *Verbena origine* R. A. Phil.

***Junellia seriphioides* (Gill. et Hook.) Moldenke.**

Verbena hystrix Briq., *Ann. Conserv. et Jard. Bot. Genève* 4: 15-16. 1900.

Verbena Briquetii Macbr., *Candollea* 5: 402. 1934.

ARGENTINA: Los Andes: San Antonio de Los Cobres, alt. 3500 m, dept. Capital, January 17, 1941, T. Meyer 3458 [Herb. Inst. Miguel Lillo 35,574] (N), spiny plants, 50 cm tall, flowers rose. Mendoza: Pampa de San Rafael, E. Wilczek 43 [Macbride photos 24,687] (Kr-photo), type collection of *Verbena hystrix* Briq. and *V. Briquetii* Macbr. — CHILE: Colchagua; Cordillera de Colchagua, 1876, R. A. Philippi s. n. [Macbride photos 24, 684] (Kr-photo).

***Junellia seriphioides* var. *tomentosa* Moldenke, var. nov.**

Haec varietas a forma typica speciei recedit ramis dense patentopubescentibus et foliis dense puberulo-pubescentibus.

This variety differs from the typical form of the species in its branches being densely spreading-pubescent and the leaves densely puberulent-pubescent, the pubescence yellowish throughout.

ARGENTINA: Mendoza: Chilcas, near Mendoza, October, 1896, W. Bodenbender s. n. [F. Kurtz 10,012] (N-type), determined previously by me and cited in *Lilloa* 5: 400 (1940) as *J. seriphioides*.

Junellia spathulata (Gill. et Hook.) Moldenke.

Verbena spathulata var. *grandiflora* Schau. in A. DC., *Prodr.* 11: 543. 1847.

Verbena ochreata Briq., *Ann. Conserv. et Jard. Bot. Genève.* 4: 18. 1900.

CHILE: Santiago: in the Andes Mountains, C. Gay s. n. [Macbride photos 24,694] (Kr-photo), cotype collection of *Verbena spathulata* var. *grandiflora* and *V. ochreata*.

Junellia succulentifolia (Kuntze) Moldenke — ARGENTINA:

Santa Cruz: Patagonia, 50-53°, 1882-1884, F. P. Moreno & Tonini 335 [Macbride photos 17,449] (Kr-photo of isotype).

Junellia trifurcata (R. A. Phil.) Moldenke, comb. nov.

Verbena trifurcata R. A. Phil., *Linnaea* 29: 21. 1857.

CHILE: Santiago: Valle del Yeso, interior Andes, R. A. Philippi s. n. [Macbride photos 17,455] (Kr-photo).

Junellia ulicina (R. A. Phil.) Moldenke. — CHILE: Colchagua:

Valle Hermoso, R. A. Philippi s. n. [Macbride photos 17,456] (Kr-photo of isotype).

Junellia uniflora (R. A. Phil.) Moldenke — CHILE: Linares:

Cordillera de Linares, R. A. Philippi s. n. [Macbride photos 17,457] (Kr-photo).

Junellia Wilczekii (Briq.) Moldenke, comb. nov.

Verbena Wilczekii Briq., *Ann. Conserv. et Jard. Bot. Genève.* 4: 18-19. 1900.

Verbena chubutensis Speg., *Anal. Soc. Cien. Argent.* 53: 245. 1902.

Junellia chubutensis (Speg.) Moldenke, *Prelim. Alph. List* 45: hyponym (1940); *Lilloa* 5: 394. 1940.

ARGENTINA: Chubut: Naphophoconel, March 10-12, 1901, N. Illin 240 [Herb. Inst. Biol. S. Paulo 24,002] (N), previously determined by me as *J. chubutensis*. Mendoza: valley of Atuel, alt. 2200-2700 m, E. Wilczek 37 [Macbride photos 24,701] (Kr-photo of type), creeping like *Salix serpyllifolia*, flowers blue and fragrant.

Lantana aristata (Schau.) Briq.

Lantana aristata var. *genuina* Briq., *Bull. Herb. Boiss.*, sér. 2, 4 : 1065. 1904.

ARGENTINA: Salta: Cerro San Bernardo, alt. 1000 m, dept. Capital, January 7, 1941, T. Meyer 3728 [Herb. Inst. Miguel Lillo 35,475] (N), flowers white. — PARAGUAY: in the region of the upper course of the Río Y-acá, December, 1900, E. Hasler 6639 [Macbride photos 17,462] (Kr-photo).

Lantana aristata var. *angustifolia* (Kuntze) Moldenke. — ARGENTINA: Salta: Alemania, alt. 1300 m, dept. Guachipas, December 12, 1929, S. Venturi 9898 (E), 80 cm, tall, flowers white. Santiago del Estero: El Charco, alt. 300 m, dept. Giménez, February 12, 1930, S. Venturi 10,104 (E), shrubby, 60 cm tall, among shrubs on high campo, flowers white.

Lantana aristata var. *Cabrerae* Moldenke — ARGENTINA: Salta: Mojotoro, alt. 1064 m, dept. Caldera, January 11, 1941, T. Meyer 3443 [Herb. Inst. Miguel Lillo 17,332] (N), flowers white.

Lantana Balansae Briq.

Lantana velutinoides var. *Bruchii* Moldenke, *Phytologia* 1 : 466. 1940.
Lippia Schickendantzii Hieron., in Herb.

ARGENTINA: Chaco: Colonia Benítez, alt. 55 m, February, 1941, T. Meyer 3725 [Herb. Inst. Miguel Lillo 35,472] (N), so determined also by the collector. Córdoba: Unquillo, 1926, C. Bruch 2831 (N), type collection of *L. velutinoides* var. *Bruchii*. Corrientes: April, W. Lossen 573 (Ba), flowers blue-red, determined as *Lantana vellinia* by the collector, bush. La Rioja: Cuesta de la Puerta de Piedra, Sierra Velasco, G. Hieronymus & G. Niederlein 97 [Macbride photos 24,665] (Kr-photo), determined as « *Lippia Schickendantzii* Hieron., n. sp. » by the collectors. — PARAGUAY: Assumption, May 17, 1874, Balansa 1034 [Macbride photos 24,631] (Kr-photo of type), small shrub with spreading branches and rose flowers.

Lantana bernardinensis Briq., *Bull. Herb. Boiss.*, sér. 2. 4: 1066. 1904. PARAGUAY: in shrubbery, San Bernardino, E. Hassler 320 [Macbride photos 24,630] (Kr-photo of type).

Lantana brachypoda Hayek in Engl., *Bot. Jahrb.*, 42: 167. 1908. — BOLIVIA: Tarija: in valley plains by brookside, Toldos, by Bermejo, alt. 1900 m, southern Bolivia, K. Fiebrig 432 [Macbride photos 17,464] (Kr-photo of type).

Lantana Cabrerae Moldenke — ARGENTINA: Salta: Coronel Moldes, alt. 1100 m, dept. La Viña, January 31, 1941, T. Meyer s. n. [Herb. Inst. Miguel Lillo 35,471] (N), plants erect, flowers white; Güemes, June 6, 1934, T. Meyer s. n. [Herb. Mus. Argent. Ciénc. Nat. 13,348] (N), previously determined by me and cited in *Lilloa* 5: 403 (1940) as *L. achyranthifolia* Desf.

Lantana Camara L. — PARAGUAY: Villarrica, P. Jørgensen 3777, in part (N), common, mixed with *L. trifolia* L., determined by E. Hassler as *L. lilacina* Desf.

Lantana cordobensis Moldenke. — ARGENTINA: Córdoba: in brook valleys by Ascochinga, April, P. G. Lorentz 136 [Macbride photos 17,490] (Kr-photo of type), type collection also of *Tamonopsis spicata* Griseb.; Estancia Germania, near Córdoba, June to December, 1874. P. G. Lorentz 165 [Macbride photos 20,329] (Kr-photo), determined by the collector as *Lippia lantanifolia* var. *crenata* Griseb.

Lantana Fiebrigii Hayek in Engl., *Bot. Jahrb.* 42: 169. 1908. BOLIVIA: Tarija: Bermejo, alt. 1700 m, south Bolivia, K. Fiebrig 2038 [Macbride photos 17,468] (Kr-photo of type).

Lantana foetida Rusby. — ARGENTINA: Tucumán: Capital, June, 1940, T. Meyer 3366 (N), semi-climbing shrub, flowers red and orange.

Lantana fucata Lindl. — PARAGUAY: E. Hassler 12,369 (Ba-photo), determined as *L. lilacina* Desf. by the collector.

Lantana Hassleri Briq. — PARAGUAY: in a field in the valley of Río Y-acá, near Valenzuela, January, E. Hassler 7003 [Macbride photos 17,469] (Kr-photo of type), shrubs 0.1-0.15 m tall, flowers purple.

Lantana hypoleuca Briq. in Chod. et Hassler. *Bull. Herb. Boiss.*, sér. 2, 4: 1064. 1904.

Lantana velutinoides Moldenke, *Phytologia* 1: 466. 1940.

Lantana mollis Moldenke, *Lilloa* 5: 414-415. 1940.

PARAGUAY: high plateau and declivities of Sierra de Amambay, December, 1907, T. Rojas s.n. [E. Hassler 9899] (N-fragment & photo, V, Z-photo), type collection of *L. mollis*; in the region of the uppercourse of the Río Apa, November, 1901, E. Hassler 7778 [Macbride photos 17,470] (Kr-photo of cotype).

Lantana Junelliana Moldenke. — ARGENTINA: Córdoba: G. Hieronymus 840 [Macbride photos 17,500] (Kr-photo), determined by the collector as *Lippia crenata* Kuntze.

Lantana micrantha Briq. — ARGENTINA: Salta: Río Arenales, alt. 1000 m, January 10, 1941, T. Meyer s. n. [Herb. Inst. Miguel Lillo 35,565] (N), shrub 2 m tall, flowers clear-purple. Tucumán: Parque 9 de Julio, alt. 500 m, dept. Capital, December 15, 1940, T. Meyer 3436 [Herb. Inst. Miguel Lillo 35,423] (N), shrub 1.5-2 m tall. — PARAGUAY: in field, E. Hassler 3123 [Macbride photos 17,477] (Kr-photo).

Lantana Rusbyana Moldenke, sp. nov.

Frutex; ramis gracilibus dense canescento-pubescentibus; foliis oppositis; petiolis crassiusculis dense hirsuto-pubescentibus marginatis; laminis firme chartaceis lanceolatis acutis, ad basin rotundatis et breviter cuneatis, regulariter serrulatis, utrinque dense pubescentibus; inflorescentiis axillaribus, oppositis vel ternatis; spicis dense multifloris dein elongatis, floribus arcte imbricatis.

Shrub; branches slender, tetragonal, densely pubescent with more or less appressed canescent hair; nodes annulate; principal internodes 4-5 cm long; leaves decussate-opposite; petioles rather stout, about 1 cm long, densely hirsute-pubescent

with canescent spreading hairs, more or less margined; blades firmly chartaceous, rather thick, uniformly gray-green on both surfaces, lanceolate, 4-5.5 cm long, 1.5-2.8 cm wide, acute at apex, rounded to a shortly cuneate base, uniformly serrulate along the margins with blunt and revolute-margined teeth from base to apex, densely pubescent on both surfaces, more or less tomentose beneath, the hairs canescent and spreading; midrib, secondaries, and veinlets conspicuously impressed above, prominent beneath; inflorescence axillary, opposite or ternate, equaling or surpassing the subtending leaves; peduncles slender, 4-5 cm long, densely canescent-pubescent with spreading or subappressed hairs; spikes elongating to 3 cm, densely many-flowered, the flowers closely imbricate; rachis densely hirsute-pubescent; bractlets ovate, about 7 mm long and 4 mm wide, acute at apex, densely canescent-pubescent; corolla-tube about 5 mm long, its limb about 4 mm wide.

BOLIVIA: Urupana, alt. 5000 feet, August 6, 1921, G. S. McCarty 121 (N-type), hitherto confused with the Mexican *L. velutina* Mart. et Gal.

Lippia Balansae Briq., *Ann. Conserv. et Jard. Bot. Genève*. 7-8: 305. 1904. — PARAGUAY: Paturages d'Itangu, near Villarrica, February 17, 1876, Balansa 1033 [Macbride photos 24,645] (Kr-photo of type), shrub 1 m tall.

Lippia bothrioura Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1162. 1904. — PARAGUAY: in swamps in the region of the upper course of the Río Apa, north Paraguay, E. Hassler 7471 [Macbride photos 24,646] (Kr-photo of type).

Lippia coriacea Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1160-1161. 1904.

Lippia coriacea f. *angustifolia* Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1161. 1904.

Lippia coriacea f. *latifolia* Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1161. 1904.

PARAGUAY: in the region of the upper course of the Río Y-acá, E. Hassler 6798 [Macbride photos 24,650, in part]

(Kr-photo of cotype), type collection of *f. latifolia* Briq.; in sandy places near Río Capibary, E. Hassler 4473 [Macbride photos 24,650, in part] (Kr-photo of cotype), shrub 0.5-1 m tall, flowers yellow, September, type collection of *f. angustifolia* Briq.

Lippia dumetorum Herzog, Meded. Rijks. Herb. Leiden 29: 45. 1916. — BOLIVIA: Quebrada de Chajravuaitu, alt. 1600 m, April 1911, T. Herzog 1851 [Macbride photos 24,649] (Kr-photo of isotype).

Lippia Hassleriana Chod. — PARAGUAY: in the region of Río Capibary, 1900, E. Hassler 5924 [Macbride photos 24,653] (Kr-photo of cotype).

Lippia heterophylla Briq. — PARAGUAY: Campo Grande between Lague and La Trinidad, May 12, 1875, B. Balansa 1038 [Macbride photos 24,654] (Kr-photo of type).

Lippia imbricata Kuntze — BOLIVIA: Parotani, alt. 2400 m, March 20, 1892, O. Kuntze s. n. [Macbride photos 17,516] (Kr-photo of isotype).

Lippia integrifolia (Griseb.) Hieron. — ARGENTINA: San Juan: Cuesta de las Huertas, Galander s. n. [Macbride photos 17,517] (Kr-photo), called « pulco ».

Lippia laxibracteata Herzog, Meded. Rijks Herb. Leiden 29: 45-46. 1916. — BOLIVIA: Villa Montes on the Río Pilcomayo, November 1910, T. Herzog 1108 [Macbride photos 20,330] (Kr-photo of isotype).

Lippia Morongii Kuntze — PARAGUAY: North Paraguay, September 1892, O. Kuntze s. n. [Macbride photos 17,528] (Kr-photo).

Lippia obscura Briq., Bull. Herb. Boiss., sér. 2, 4: 1155-1156. 1904. — PARAGUAY: in the region of the upper course of the Río Apa, 1901-1902, E. Hassler 8016 [Macbride photos 17,529] (Kr-photo of type).

- Lippia paraguariensis** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1163-1164. 1904. — PARAGUAY: fields in the region of the upper course of the Río Apa, November, 1902, E. Hassler 7802 [Macbride photos 24,656] (Kr-photo of type).
- Lippia phaeocephala** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1158-1159. 1904. — PARAGUAY: sandy field near Concepción, September, 1902, E. Hassler 7456 [Macbride photos 24,659] (Kr-photo of cotype).
- Lippia phryxocalyx** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1161-1162. 1904. — PARAGUAY: region of the upper course of the Río Apa, November, 1902, E. Hassler 7896 [Macbride photos 17,531] (Kr-photo of isotype).
- Lippia polycephala** var. **Aemillii** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1155. 1904. — PARAGUAY: in the region of the upper course of the Río Y-acá, December, 1900, E. Hassler 6720 [Macbride photos 17,533] (Kr-photo of type).
- Lippia polytricha** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1158. 1904. — PARAGUAY: fields near San Estanislao, August, E. Hassler 4184 [Macbride photos 24,660] (Kr-photo of cotype).
- Lippia salsa** Griseb. — ARGENTINA: Santiago del Estero: G. Hieronymus & P. G. Lorentz 494 [Macbride photos 17,539] (Kr-photo of type).
- Lippia scaposa** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1162-1163. 1904. — PARAGUAY: valley of Río Y-acá, in field near Valenzuela January, E. Hassler 6965 [Macbride photos 17,542] (Kr-photo of isotype).
- Lippia sclerophylla** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1067-1068. 1904.
- Lippia sclerophylla* var. *crenato-dentata* Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1068. 1904.

The original reference for this species was given as page «1162» in error by me in *Lilloa* 5: 428 (1940).

Lippia sclerophylla var. **subintegra** Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1068. 1904. — PARAGUAY: valley of Río Y-acá, in field near Valenzuela, January, 1902, E. Hassler 6919 [Macbride photos 24,667] (Kr-photo of type).

Lippia suffruticosa (Griseb.) Kuntze.

Lippia geminata var. *suffruticosa* Griseb., *Abh. K. Gesell. Wiss. Götting.* 24: 278. 1879.

ARGENTINA: Salta: P. G. Lorentz & G. Hieronymus 234 [Macbride photos 17,550] (Kr-photo of type). Tucumán: Cerro del Campo, alt. 1500 m, dept. Burruyacu, April 10, 1930, S. Venturi 10,323 (E), flowers bluish.

Lippia tegulifera var. **ovata** Briq. — PARAGUAY: in the region of Cerros de Tobaty, Cordillera Central, 1900, E. Hassler 6108a [Macbride photos 17,551] (Kr-photo). Hassler's n° 6108 is a mixture of several varieties according to Briquet in *Bull. Herb. Boiss.*, sér. 2, 4: 1156 (1904).

Lippia trachyphylla Briq., *Ann. Conserv. et Jard. Bot. Génév.* 7-8: 312-313. 1904. — PARAGUAY: sandy borders of Y'-acan-guazú near Valenzuela, November, 1882, B. Balansa 4626 [Macbride photos 24,672] (Kr-photo of type).

Lippia tristis Briq.

Lippia tristis var. *normalis* Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1160. 1904.

PARAGUAY: in the region of Río Carimbatay, September, E. Hassler 4554 [Macbride photos 24,674] (Kr-photo of cotype), cotype collection also of var. *normalis* Briq.

Lippia turbinata Griseb. — ARGENTINA: Córdoba: Estancia Germania near Córdoba, June to September, 1874, P. G. Lorentz 86 [Macbride photos 20,336] (Kr-photo of type). Salta: Alemania, alt. 1170 m, dept. Guachipas, January 14, 1941, T. Meyer 3447 [Herb. Inst. Miguel Lillo 17,335] (N), so determined also by the collector; Cerro San Bernardo, alt. 1200 m, dept. Capital, January 7, 1941, T. Meyer

3735 [Herb. Inst. Miguel Lillo 35,482] (N), called «poleo», flowers purplish-white, so determined also by the collector; Coronel Moldes, alt. 1100 m, dept. La Viña, January 31, 1941, T. Meyer 3726 [Herb. Inst. Miguel Lillo 35,473] (N), called «poleo», so determined also by the collector; Cerrillos, alt. 1100 m, dept. Cerrillos, February 10, 1941, T. Meyer 3453 [Herb. Inst. Miguel Lillo 35,571] (N), plants medicinal, called «poleo», so determined also by the collector. Tucumán: woods along Río Nio, El Cajón, alt. 700 m, dept. Burruyacu, May 17, 1929, S. Venturi 8518 (E), 1 m tall, flowers white.

Lippia turbinata f. angustifolia Osten — ARGENTINA: Córdoba: Córdoba, January 25, W. Lossen 221 (Ba), shrub, flowers white, determined by the collector as *L. turbinata* Griseb.

Lippia turnerifolia Cham. — ARGENTINA: Salta: Campo Quijano, alt. 1200 m, dept. Rosario de Lerma, January 18, 1941, T. Meyer 3452 [Herb. Inst. Miguel Lillo 35,569] (N), flowers yellow.

Lippia villafloridana Kuntze, *Rev. Gen. Pl.* 2, 3: 253. 1898.

Lippia floridana Kuntze, in herb.

PARAGUAY: Villa Florida, October 2, 1892, O. Kuntze s. n. [Macbride photos 24,677] (Kr-photo of isotype, N-type).

Neosparton ephedroides Griseb. — ARGENTINA: P. G. Lorentz 357 [Macbride photos 17,580] (Kr-photo of cotypes). — CHILE: Antofagasta: R. A. Philippi s. n. [Macbride photos 17,581] (Kr-photo), type collection of *N. striatum* R. A. Phil.

Timotocia Hassleri (Briq.) Moldenke — PARAGUAY: E. Hassler 7889 [Macbride photos 24,627] (Kr-photo of type).

Timotocia hymenocalyx (Briq.) Moldenke — PARAGUAY: E. Hassler 7637 [Macbride photos 24,628] (Kr-photo of type).

Timotocia ilicifolia (Moldenke) Moldenke — ARGENTINA: La Rioja: Stuckert 17,013 [Macbride photos 28,392] (Kr-photo of type).

Verbena araucana R. A. Phil., *Anal. Univ. Chil.* 520-521. 1873.
— CHILE: Linares: R. A. Philippi s. n. [Macbride photos 17,400] (Kr-photo).

Verbena Balansae Briq. in Chod. et Hassler, *Bull. Herb. Boiss.*, sér. 2, 4: 1059. 1904.

Verbena thymoides Chod. apud. Briq. in Chod. et Hassler, *Bull. Herb. Boiss.*, sér. 2, 4: 1059, in syn. 1904 [not *V. thymoides* Cham., *Linnaea* 7: 257. 1832].

PARAGUAY: in fields at Caaguazú, March, 1876, B. Balansa 1028 [Macbride photos 24,680] (Kr-photo of cotype).

Verbena bonariensis L. — ARGENTINA: Chaco: Colonia Benítez, alt. 55 m, January 21, 1941, T. Meyer 3444 [Herb. Inst. Miguel Lillo 17,333] (N).

Verbena brasiliensis Vell.

Verbena cordobensis Briq., *Ann. Conserv. et Jard. Bot. Genève*. 10: 100. 1907.

Verbena boliviana Briq., in herb.

ARGENTINA: Córdoba: Estancia Germania, June to December, 1874, P. G. Lorentz 131 [Macbride photos 20,316] (Kr-photo), type collection of *V. cordobensis* Briq. — BOLIVIA: Mandon 524 [Macbride photos 24,681] (Kr-photo), type collection of *V. boliviana* Briq. — CHILE: Concepcion: Concepción, C. Junge 2323 (Ba), determined as « *Verbena litoralis* L. » by the collector. Santiago: G. Looser 4381 (N), 1,5 m tall, flowers blue, determined as *V. litoralis* by the collector. — PARAGUAY: in the vicinity of Igatimi, October, E. Hassler 4887 [Macbride photos 24,679] (Kr-photo), determined as *V. approximata* Briq. by J. Briquet.

***Verbena calliantha* Briq.**

Verbena calliantha var. *genuina* Briq., *Bull. Herb. Boiss.*, sér. 2, 4: 1060. 1904.

PARAGUAY: on shore of Río Limpio, August, 1902, E. Hassler 3196 [Macbride photos 24,682] (Kr-photo).

***Verbena corollata* Briq., *Ann. Conserv. et Jard. Bot. Genève*. 10: 100-101. 1907.**

Verbena corollata Briq., *Ann. Conserv. et Jard. Bot. Genève*. 10: 101, in textu. 1907.

ARGENTINA: Mendoza: Sierra Pintada, alt. 1400 m, February, 1897, E. Wilczek 56 [Macbride photos 24,683] (Kr-photo of type).

***Verbena chilensis* Moldenke, nom. nov.**

Verbena glabrata R. A. Phil., *An. Univ. Chil.* 35: 190-191 [Sert. Mendoc. Alt. 32]. 1870 [not *V. glabrata* H. B. K., *Nov. Gen. et Sp. Pl.* 2: 276-277. 1818].

ARGENTINA: Mendoza: R. A. Philippi s. n. [Macbride photos 17,417] (Kr-photo of isotype).

Verbena corymbosa* Ruiz et Pav. — CHILE: Cantín: in wet soil, Pfister XVI [G. Looser 4380] (N).**Verbena crithmifolia* Gill. & Hook. — ARGENTINA: Córdoba: December, W. Loosen 8 (Ba), flowers violet, determined as *Verbena crithmifolia* by the collector.*****Verbena dissecta* Willd.**

Verbena laciniata Kuntze, in herb. [not *V. laciniata* (L.) Briq.].

ARGENTINA: 1923, H. Friedmann s. n. (Ba), determined as *V. incisa* Hook. by the collector. Jujuy: Sierra de Zenta, alt. 2800 m, dept. Humahuaca, in a quebrada, February 28, 1929, S. Venturi 8356 (E), 60 cm tall, flowers bluish. Santa Cruz: Patagonia, 50°3', 1882-1884, F. P. Moreno s. n. (N), determined as *V. tenera* Spreng. by the collector. Tucumán: Capital, September 22, 1940, T. Meyer 3368 (N-2), flowers lilac-red. — BOLIVIA: O.

Kuntze s. n. [Macbride photos 17,424] (Krr-photo), type collection of *V. laciniata* Kuntze.

Verbena glutinosa Kuntze — ARGENTINA: Paso Cruz, alt. 1500 m, January, 1892, O. Kuntze s. n. [Macbride photos 17,418] (Kr-photo of isotype).

Verbena gracilescens (Cham.) Herter — ARGENTINA: Tucumán: Capital, alt. 400 m, dept. Capital, December 2, 1940, T. Meyer 3421 [Herb. Inst. Miguel Lillo 35,404] (N).

Verbena gynobasis Wedd., *Chlor. And.* 2: 156. 1855.

Verbena bella R. A. Phil., *Anal. Mus. Nac. Chil.* 58. 1891.

CHILE: Tarapacá: Sibaya, R. A. Philippi s. n. [Macbride photos 17,419] (Kr-photo), type collection of *V. bella* R. A. Phil.

Verbena Hasslerana Briq.

Verbena phlogiflora Chod. apud Briq. in Chod. et Hassler, *Bull. Herb. Boiss.*, sér. 2, 4: 1056, in syn. 1904 [not *V. phlogiflora* Cham., *Linnaea* 7: 266-267. 1832].

PARAGUAY: near Tobaty in swamp. September, 1900, E. Hassler 6464 [Macbride photos 24,685] (Kr-photo of cotype).

Verbena hispida Ruiz et Pav. — ARGENTINA: Salta: Campo Quijano, alt. 1200 m, dept. Rosario de Lerma, January 23, 1941, T. Meyer 3446 [Herb. Inst. Miguel Lillo 17,334] (N), flowers blue.

Verbena incisa Hook. — ARGENTINA: 1923, H. Friedmann s. n. (Ba), collected for Dr. T. H. Morgan, determined as « *Verbena chamaedryfolia* Juss.» by the collector. Chaco: in field, Colonia Benítez, September, 1937, A. G. Schulz 1475 (N), herb 40-90 cm tall, abundant, flowers red, determined as « *V. chamaedryfolia* Juss.» by C. Osten, previously determined by me as *V. peruviana* (L.) Britton; Colonia Benítez, November, 1937, T. Meyer 2673 (N), flowers red, previously determined by me as *V. peruviana*.

Corrientes: highway to Pay-ubre Grande, November, 1936, A. P. Rodrigo 705 (N-2), flowers red, called «margarita punzó», determined as «*V. chamaedryfolia* Juss.» by the collector, previously determined by me as *V. peruviana*; Isla Meza, Capital, November, 1936, A. P. Rodrigo 855 (N), called «margarita punzó», determined as «*V. chamaedryfolia* Juss.» by the collector, previously determined by me as *V. peruviana*. Santa Fe: El Tostado, Río Salado, January to February, 1936, M. M. Job 1071 (N), previously determined as *V. peruviana* by me. Tucumán: all along roadsides from Tucumán to Raco, alt. 670-700 m, December 27, 1935, Y. Mexia 7832 (N), herb with scarlet flowers, one of the commonest flowering plants, previously determined by me as *V. peruviana*; Paso de San Andrés, alt. 450 m, dept. Cruz Alta, December 22, 1923, S. Venturi 2433 (N), determined as *Lippia nodiflora* by the collector, previously determined by me as *V. peruviana*. PARAGUAY: in field near Guazue, July, E. Hassler 567 (N), determined as «*Verbena megapotamica* Spreng. f. *truncatula* Briq.» by J. Briquet; streets of Villa Rica, Bureau of Plant Industry, December 16, 1936, W. A. Archer 4666 (N), prostrate, flowers crimson, determined as *V. platensis* Spreng. by E. P. Killip, previously determined by me as *V. peruviana*; Encarnación, alt. 100 m, in sandy soil along roadsides, December 28, 1929, W. G. Herter 84,432 (N), flowers violet, previously determined by me as *V. peruviana*; common in fields, Villarica, November, 1932, P. Jørgensen 3772 (N), flowers scarlet, previously determined by me as *V. peruviana*; Asunción, central Paraguay, November 1, 1888, T. Morong 51 (C, Mi), determined as *V. peruviana* by the collector, who says: «This scarlet-flowered trailing verbena seems to grow all over Paraguay, and nearly all the year around. I found it not only in copses about Asuncion, but also in the streets of the city, and far up on the Pilcomayo River. It is equally common a hundred miles east of Asuncion. The stems sometimes climb up among bushes for 6 dm or more.»

Verbena intercedens Briq. — PARAGUAY: in the region of Cerros de Tobaty, September, 1900, E. Hassler 6149 [Macbride photos 17,422] (Kr-photo of cotype).

Verbena Isabellei Briq.

Verbena minutiflora Briq., in herb.

URUGUAY: Montevideo, Capt. King s. n. [Macbride photos 24,693] (Kr-photo), type collection of *V. minutiflora* Briq.

SOLANACEAE

Nicotiana determination by T. H. Goodspeed;

Petunia by C. V. Morton

Nicotiana longiflora Cav. — ARGENTINA: Buenos Aires: Punta Lara, November 22, 1940, G. Dawson 1021 (N).

Petunia axillaris (Lam.) B. S. P. — URUGUAY: Punta del Este, dept. Maldonado, January 3, 1941, H. R. Descole 16 [Herb. Inst. Miguel Lillo 35,303] (N).

GESNERIACEAE

determination by C. V. Morton

Achimenes gymnostoma (Griseb.) Lillo — ARGENTINA: Tucumán: road to Villa Nougés, alt. 800-900 m, dept. Tafi, January, 1939, Schreiter & H. R. Descole s. n. [Herb. Inst. Miguel Lillo 35,201] (N).

ACANTHACEAE

determinations by E. C. Leonard

Beloperone Amherstiae Nees — ARGENTINA: Salta: Aguaray, alt. 560 m, dept. Orán, January 7, 1940, Schreiter 10,867 [Herb. Inst. Miguel Lillo 33,522] (N), flowers white.

Beloperone ramulosa Morong — ARGENTINA: Salta: Embarcación, alt. 300 m, dept. Orán, February 22, 1940, Schreiter 10,866 [Herb. Inst. Miguel Lillo 33,523] (N), flowers blood-red.

Dyschoriste Venturi Leonard — ARGENTINA: Salta: Vespucio to Hickmann (km 58), dept. Orán, February, 1940, Schreiter 10,869 [Herb. Inst. Miguel Lillo 33,521] (N).

Justicia comata (L.) Lam. — ARGENTINA: Salta: Embarcación (km. 1317), alt. 300 m, dept. Orán, February 22, 1940, Schreiter 11,228 [Herb. Inst. Miguel Lillo 34,372] (N), flowers white.

Justicia pauciflorus Griseb. — ARGENTINA: Jujuy: Tilcara, alt. 2480 m, dept. Tilcara, February 10, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 33,529] (N), flowers purple.

Ruellia graecizans Backer — ARGENTINA: Salta: Río Tartagal, alt. 500 m, dept. Orán, January 4, 1940, Schreiter 10,862 [Herb. Inst. Miguel Lillo 33,527], (N) flowers flesh-colored.

Ruellia Tweediana Griseb. — ARGENTINA: Salta: Vespucio to Hickmann (km. 58), alt. 350 m, February, 1940, dept. Orán, Schreiter 10,868 [Herb. Inst. Miguel Lillo 33,528] (N), flowers white.

LOBELIACEAE

determination by H. A. Gleason

Siphocamphylus boliviensis Zahlbr. — ARGENTINA: Salta: Lizoite, alt. 3340 m, dept. Santa Victoria, April 5, 1940, T. Meyer s. n. [Herb. Inst. Miguel Lillo 34,131] (N), 1,5 m tall.

CARDUACEAE

determinations by H. A. Gleason

Vernonia auriculata Griseb. — BOLIVIA: Santa Cruz: monte ralo del Piray, alt. 480 m, prov. Cercado, J. Steinbach 2589 [Herb. Inst. Miguel Lillo 35,049] (N), so determined also by the collector.

Vernonia Bangii Rusby — BOLIVIA: Santa Cruz: Desmontes, alt. 450 m, prov. Buena Vista, August, 1915, J. Steinbach

1549 [Hero. Inst. Miguel Lillo 35,054] (N-2), flowers white, so determined also by the collector.

Vernonia brasiliana (L.) Druce — BOLIVIA : Santa Cruz : prov. Buena Vista, alt. 450 m, July 8, 1915, J. Steinbach 1495 [Herb. Inst. Miguel Lillo 35,059] (N), determined as *V. scabra* Pers. by the collector; prov. Sara, alt. 400 m, June 21, 1916, J. Steinbach 2417 [Herb. Inst. Miguel Lillo 35,063] (N), flowers white, calyx with violet-rose dots, determined as *V. scabra* Pers. by the collector.

Vernonia cordiaefolia H. B. K. — BOLIVIA : Santa Cruz : Desmontes, alt. 450 m, prov. Buena Vista, July, 1915, J. Steinbach 1521 [Herb. Inst. Miguel Lillo 35,057] (N), determined as « *Vernonia* cfr. *volubilis* Hieron. » by the collector.

Vernonia elegans Gardn. — BOLIVIA : Santa Cruz : wet fields, 450 m, prov. Buena Vista, April, 1915, J. Steinbach 1164 [Herb. Inst. Miguel Lillo 35,050] (N), flowers violet-blue, so determined also by the collector.

Vernonia remotiflora Rich. var. **tricholepis** Bak. — BOLIVIA : Santa Cruz : montes ralos, alt. 450 m, prov. Buena Vista, May, 1915, J. Steinbach 1350 [Herb. Inst. Miguel Lillo 35,058] (N), flowers violet.

Vernonia rubricaulis H. B. K. — BOLIVIA : Santa Cruz : Cantón Buena Vista, alt. 450 m, prov. Sara, April 8, 1916, J. Steinbach 1919 [Herb. Inst. Miguel Lillo 35,062] (N), flowers rose, so determined also by the collector.

Vernonia scorpioides Pers. — BOLIVIA : Santa Cruz : Cuenca del Surutu, Cantón Buena Vista, prov. Sara, July 7, 1916, J. Steinbach 2443 [Herb. Inst. Miguel Lillo 35,055] (N-2), flowers violet, so determined also by the collector.

Vernonia scorpioides Pers. var. — BOLIVIA : Desmonte, alt. 450 m, cantón Buena Vista, prov. Sara, August, 1915, J.

Steinbach 1537 [Herb. Inst. Miguel Lillo 35,053] (N), so determined also by the collector.

Vernonia scorpioides var. **cuneifolia** Rusby — BOLIVIA : Santa Cruz : prov. Sara, alt. 450 m, June 17, 1916, J. Steinbach 2373 [Herb. Inst. Miguel Lillo 35,056] (N), calyx green with violet dots, central filaments white, determined as *V. Salzmanni* DC. by the collector; firm ground, alt. 450 m, prov. Buena Vista, April, 1915, J. Steinbach 1399 [Herb. Inst. Miguel Lillo 35,060] (N), flowers lilac, determined as « *V. Salzmanni* DC. var. » by the collector. This was originally *V. scorpioides* var. *cuneifolia* Rusby. Elevated by H. A. Gleason to *V. cuneifolia* (Rusby) Gleason, which name is invalid.