

violet" on Webster & Lynch 17672.

Material of this taxon has been misidentified and distributed in some herbaria as *C. grandiflora* Steud., *C. grandifolia* (Schlecht. & Cham.) Schau., *C. latifolia* (H.B.K.) Mold., and *C. lilacina* Mold.

Additional & emended citations: MEXICO: Quintana Roo: Cabrera & Cortez 366 (N); Moreno 876 (Me--300481); Téllez & Cabrera 2490 (Ld), 2792 (N); Téllez, Cabrera, & Rico 3360 (N), 3462 (N); Webster & Lynch 17672 (Me--286493). Tabasco: Cowan & Magaña in C. Cowan 3232 (N). Yucatán: Lundell & Lundell 7888 (W--1888275). GUATEMALA: El Peten: Harmon & Fuentes 5820 (W--2923350, Ws); Ortiz 1330 (W--2925228). BELIZE: Gentle 186 (F--662519, Mi, N, W--1585899, W--1636835); Wiley 430 (Ld). HONDURAS: Cortés: Molina R. 5222 (W--2189005).

CORNUTIA PYRAMIDATA var. *ISTHMICA* f. *ALBIDA* Mold.

Additional bibliography: Mold., *Phytologia* 41: 130. 1978; Mold., *Phytol. Mem.* 2: 71, 395, & 546. 1980.

CORNUTIA PYRAMIDATA f. *SERRATA* Mold., *Phytologia* 52: 230. 1982.

Bibliography: Mold., *Phytologia* 52: 230. 1982.

Citations: LEEWARD ISLANDS: Guadeloupe: Questel 2388 (E--photo of type, W--1881896--type).

CORNUTIA THYRSOIDEA Banks & Mold.

Additional bibliography: Mold., *Phytologia* 41: 130. 1978; Hocking, Excerpt. Bot. A.33: 91. 1979; Mold., *Phytol. Mem.* 2: 93, 352, & 546. 1980.

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ADDITIONAL NOTES ON THE GENUS *LIPPIA*. XVIII

Harold N. Moldenke

Since the publication of the last previous notes on this genus so many hundreds of herbarium specimens have come to hand from collectors in the field and from herbarium curators and so much new bibliographic information has become available that another in my ongoing series of notes has become justified. Herbarium acronyms are those used in all previous papers and most recently explained in *Phytologia Memoirs* 2: 463--469 with a supplement in *Phytologia* 50: 268.

LIPPIA Houst.

Additional bibliography: P. Mill., *Gard. Dict.*, ed. 8, *Lantana* no. 8. 1768; Willd. in L., *Sp. Pl.*, ed. 4, 3 (2): 3. 1802; Reichenb., *Deutsch. Bot. [Repert. Herb. Nom.]* 108. 1841; Brongn., *Enum. Gen. Pl.*, ed. 1, 65. 1843; D. Dietr., *Syn. Pl.* 3: 371, 596--600, 609, & 610. 1843; Walp., *Repert. Bot. Syst.* 4: [3], 33, 34, 41--57, 64, 69, & 134. 1845; Lindl., *Veget. Kingd.*, ed. 1, 663 &

664 (1846) and ed. 2, 663 & 664. 1847; Walp., *Repert. Bot. Syst.* 6: 688--689. 1847; Walp., *Ann. Bot. Syst.* 1: 543. 1849; Brongn., *Enum. Gen. Pl.*, ed. 2, 119. 1850; A. Rich. in Sagra, *Hist. Fis. Polit. Nat. Cuba* 11 (2): 139--140. 1850; Lindl., *Veg. Kingd.*, ed. 3, 663 & 664. 1853; C. Muell. in Walp., *Ann. Bot. Syst.* 5: 707 & 708. 1860; Miq., *Journ. Bot. Néerl.* 1: 115. 1861; Sagra, *Icon. Pl. Fl. Cub.* 40. 1863; Seem., *Fl. Vit.* 186. 1866; Lindl. & Moore, *Treas. Bot.*, ed. 2, 1: 687. 1870; Franch. & Savat., *Enum. Pl. Jap.* 1: 357. 1875; F. Muell., *Fragm. Phyt. Austral.* 9: 4. 1875; Lindl. & Moore, *Treas. Bot.*, ed. 3, 1: 687. 1876; A. Gray, *Synop. Fl. N. Am.*, ed. 1, 2: 333 & 338--339. 1878; Bailey & Tenison-Woods, *Proc. Linn. Soc. N. S. Wales* 4: 174. 1880; Dymock, *Veg. Mat. Med. W. India*, ed. 1, ix, 498--499, & 765. 1884; Lindl. & Moore, *Treas. Bot.*, ed. 4, 1: 687. 1884; A. Gray, *Synop. Fl. N. Am.*, ed. 2, 2: 333 & 338--339. 1886; Maxim., *Bull. Acad. Imp. Sci. St.-Petersb.* 31: 73. 1886; Durand, *Ind. Gen. Phan.* 320. 1888; Podwissodaki, *Parke Davis Work Bull. Scient. Invest. New Mat. Med.* 251. 1889; F. Muell., *Sec. Syst. Census Austral. Pl.* 1: 171. 1889; F. M. Bailey, *Cat. Indig. Nat. Pl. Queensl.* 35. 1890; Baill., *Hist. Pl.* 11: 81, 91, 94, 101, 102, & 112, fig. 86. 1891; Lace & Hemsl., *Journ. Linn. Soc. Lond. Bot.* 28: 318. 1891; Baill., *Hist. Pl.* 11: 491. 1892; Dymock, *Warden, & Hooper, Pharmacog. Ind.*, imp. 1, 3: [iii] & 57--58. 1893; Briq. in *Engl. & Prantl, Nat. Pflanzenfam.*, ed. 1, 4 (3a): 133, 135, 137, 138, 140--143, 149--152, 379, & 382. 1895; S. Moore, *Trans. Linn. Soc. Lond. Bot.*, ser. 2, 4: 435--437 & 531. 1895; Millsp. & Nutt., *Field Mus. Publ. Bot.* 1: 224. 1896; Hock, *Justs Bot. Jahresber.* 22 (2): 76. 1897; Millsp., *Field Columb. Mus. Publ. Bot.* 1: 387. 1898; Lindl. & Moore, *Treas. Bot.*, ed. 5, 1: 687. 1899; Koord. & Valet., *Meded. Lands Plant.* 42: 164. 1900; F. M. Bailey, *Queensl. Fl.* 4: 1165 & 1171--1172. 1901; Bettfreund, *Fl. Argent.* 3: 160 & 254--255. 1901; Millsp., *Field Columb. Mus. Publ. Bot.* 1: 524. 1902; schelle in Beissner, Schelle, & Zabel, *Handb. Laubholz-Benen.* 426. 1903; Post & Kuntze, *Lexicon* 20, 94, 334, & 688. 1904; Duthie in Strachey, *Cat. Pl. Kumaon* 136. 1906; Power & Tutin, *Am. Journ. Pharm.* 79: 449--462. 1907; Vierh., *Denkschr. K. Akad. Wiss. Wien* 71: 114 [434]. 1907; E. D. Merr., *Philip. Journ. Sci.* 3: 430. 1908; Thonner, *Blütenpfl. Afr.* 498. 1908; Haines, *For. Fl. Chota Nagpur* 488. 1910; Brandis, *Indian Trees*, imp. 3, 502--503. 1911; Pulle in Lorentz, *Nova Guinea*, ser. 1, 8 (1): 401. 1911; Wehmer, *Pflanzenst.*, ed. 1, 645--646. 1911; F. W. Harvey, *Garden* 76: 24. 1912; Koord., *Exkursionsfl.* 3: 131, 133, & 439. 1912; E. D. Merr., *Philip. Journ. Sci. Bot.* 7: 165 & 189. 1912; Urb., *Symb. Antil.* 7: 353--354. 1912; Thonner, *Flow. Pl. Afr.* 468. 1915; Parker, *For. Fl. Punj.*, ed. 1, 404--405. 1918; Hubert, *Trav. Lab. Mat. Méd. Fac. Pharm. Paris* 13: [Verb. Util. Mat. Med.] 2, 3, [19], 30--44, 124, 128, & [129], pl. 2, fig. 9--11. 1921; E. D. Merr., *Enum. Philip. Flow. Pl.* 3: 381. 1923; H. J. Lam in Lauterb., *Engl. Bot. Jahrb.* 59: [87]. 1924; Parker, *For. Fl. Punj.*, ed. 2, 404--405. 1924; Borsch, *Hardy Herb. Alp. Pl.* 18. 1927; Domin, *Bibl. Bot.* 22 (89): 1106. 1928; Ekman, *Arkiv Bot.* 22A: 51 & 105. 1929; Ewart, *Fl. Vict.* 973--974. 1930; C. A. Gardn., *Enum. Pl. Austral. Occid.* 3: 111. 1931; Pio Corrêa & Pena, *Dic. Pl. Uteis Bras.* 2: 208, 254, 255, & 257 (1931) and 3, imp. 1, 393. 1931;

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Duval (1982) gives some interesting details about the life and work of Auguste Lippi (1678--1704), the unfortunate French naturalist to whom the present genus is dedicated: "In 1705 [date?], one of Fagon's protégés, the young botanist Augustin Lippi, together with an entire diplomatic mission, was assassinated on the way to Abyssinia. Lippi was only twenty-seven years old. After landing in Cairo, the mission was blockaded somewhere along the Ethiopian border, and finally massacred. Augustin Lippi had been able, however,

to send off a few messages before the disaster, and he had also dispatched some seeds to Fagon. The latter was convinced that Lippi would have been a great botanist, and there is much to confirm his view. Lippi was the first to be interested in algae, for example, which no one before him had seriously thought of including in the realm of botany. Before leaving for Egypt, he sent numerous algae specimens to the garden from Marseilles along with a lengthy report. Danty d'Isnard, a professor at the King's Garden, sought to reconstitute Lippi's work about 1710, but it was too widely dispersed. At least 200 specimens sent back in his name had been classified in other herbaria. Later, Michel Adanson was to pay tribute to the perceptiveness of Lippi's observations on palms and fig trees, noting that his predecessor had been the first to call attention to the existence of the baobab (*Adansonia digitata*), which Adanson was to introduce into Europe. And as a posthumous tribute, Linnaeus dedicated to the murdered botanist a plant of the *Verbenaceae* family, the lippia." He goes on to remind us that "The massacre of the Abyssinian mission helps us understand the perpetual state of anxiety experienced by members of most of the scientific expeditions of the period." The Corrells (1982) give "1703" as the date of Lippi's death, but the late Dr. John Hendley Barnhart, pre-eminent botanical biographer and bibliographer, has adopted 1704 as the actual date. The Corrells assert that the genus contains "about 206 species" -- actually, as of the present date, I accept 300 taxa in the genus proper. Lindley, in 1870, commented that it contained "nearly a hundred species" at that time, "generally with glands containing an aromatic volatile oil".

Durand (1888) divided the genus into 2 sections: *Aloysia* Schau. (comprising our present genera *Aloysia* Ort. and *Acantholippia* Griseb.) and *Zapania* Benth. & Hook. (including the present genus *Phyla*). Dalla Torre & Harms (1904) divided it into subgenus *Aloysia* Schau. and subgenus *Zapania* Benth., the latter into 5 sections: *Gonostachyum* Schau., *Acantholippia* Briq., *Dipterocalyx* Schau., *Euzapania* Briq., and *Rhodolippia* Schau. -- *Euzapania* divided again into 3 subsections: *Axilliflorae* Schau., *Panniculatae* Schau., and *Corymbosae* Schau.

Jafri, as late as in 1966, still gave "about 100" as the number of species in *Lippia*, but his generic description clearly indicates that he was referring to the segregated genus *Phyla* ("Usually creeping herbs").

Rzedowski (1978) tells us that in Mexico *Lippia* grows in secondary lower woods along with such genera as *Annona*, *Casearia*, *Castilla*, *Cochlospermum*, *Conostegia*, *Cordia*, *Croton*, *Gliricidia*, *Guzuma*, *Leucaena*, *Luehea*, *Muntingia*, *Pithecellobium*, *Sapindus*, *Spondias*, *Trema*, *Trichilia*, and *Zanthoxylum*.

Wright and his associates (1978) record the common name, "lippea", for members of the genus. Heath (1981) lists "oregano" and "Mexican sage" for unidentified species of the genus which yield a "camphoraceous, thyme-like" flavone. Gardner & Bennetts (1956) report that in western Australia members of the genus cause a disease in domestic animals called "lippia poisoning", the sen-

sitiving agent being phylloerythrin and the liver damage being caused by icterogenins.

Riddick (1955) reports the scale-insect, *Aspidiotus lantaniae* Sign. attacking member of the genus *Lippia* in Florida, but he is here probably referring to *Phyla*.

Excluded species: *Lippia stoechas* Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 152, nom. nud. 1895 = *Lavandula stoechas* L., Lamiaceae.

The *Mejía & Zanoni* 6748, distributed as *Lippia* sp., actually is *Aloysia looseri* Mold., while *Burkart & al.* 30593 is *Aloysia scorodonioides* (H.B.K.) Cham., *Venturi* 7344 & 9898 are *Lantana aristata* var. *angustifolia* (Kuntze) Mold., *Elias* 654 is *Lantana camara* var. *moritziana* f. *parvifolia* (Mold.) López-Palacios, *Pennell* 3589 is *Lantana fucata* f. *albiflora* Mold., *Lyonnet* 1322 is *Lantana hirta* Grah., *Palmer* 551 is *Lantana macropoda* Torr., *Cook* 124, *Herb. Inst. Physico-geogr. Nat. Costaric.* 16389, and *Miller & Griscom* 40 are *Lantana maxima* Hayek, *Purpus* 5297, *Rose, Painter, & Rose* 9036, and *Sousa* 4892 are *Lantana micrcephala* A. Rich., *Fournier* 143 is *Lantana peduncularis* Anderss., *Johnson* 73 is *Lantana trifolia* L., *Cook* 62 is *Lantana trifolia* f. *hirsuta* Mold., *Palmer* 28 and *Perry & Palmer* 709 are *Lantana velutina* Mart. & Gal., *Héringer* 17074 is a *Hyptis* sp., and *Héringer* 16937, 16937a, & 17074, *Héringer*, *Filgueiras*, *Mendonça*, & *Pereira* 6398, *Héringer*, *Paula*, *Mendonça*, & *Salles* 314, and *Silva* 273 are not verbenaceous.

LIPPIA ABYSSINICA (Otto & Dietr.) Cuf.

Additional & emended bibliography: Walp., *Repert. Bot. Syst.* 4: 53, 55--56, & 69. 1845; Bocq., *Adansonia*, ser. 1, 3: 244. 1863; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 151 & 152, 1895; Wehmer, *Pflanzenst.* 2: 1022. 1931; Meikle in *Brenan & al.*, *Kew Bull.* 17: 173--174. 1963; Mold., *Phytologia* 48: 155. 1981.

Gilbert describes this plant as a 6-foot shrub, known as "kesho" in Ethiopia. and there found growing at the edges of shrubbery and "used in cleaning milk cans, giving a smoky flavor" to the milk. He found it in flower in December and mistakenly distributed his material as *Lantana* sp.

Wehmer (1931) reports the herbage containing 0.753% of a volatile oil, of which carvon comprises 72%, d-limonol 5%, phellandrol 2.4%, and terpene 3.4%. As authority he cites *Rovesti*, *Ann. Chim. Appl.* 17: 553. 1927 ("C. C. 1928. I.1105). *Constanten! -- de Benedictis* 1926, *ibid. cit.*"

Additional citations: ETHIOPIA: *E. F. Gilbert* 521 (Mi). MOUNTED ILLUSTRATIONS: *Burger*, *Fam. Flow. Pl.* 198, fig. 60. 1967 (Ld).

LIPPIA AFFINIS Schau.

Additional bibliography: Mold., *Phytologia* 48: 156. 1981; Raj, *Rev. Palaeobot. Palyn.* 39: 350, 364, & 396. 1983.

This plant has been found in flower in May and the corollas are said to have been "rose" in color on the collection cited below.

Additional citations: BRAZIL: Minas Gerais: *Gibbs*, *Abbott*, & An-

drade 5235 (N).

LIPPIA ALBA (Mill.) N. E. Br.

Additional synonymy: *Lantana canescens* Clarke ex Hubert, Trav. Lab. Mat. Méd. Fac. Pharm. 13: 42 in syn. 1921 [not *Lantana canescens* Benth., 1959, nor H.B.K., 1817, nor Kunth, 1825]. *Lantana lippiioides* Hook. ex Hubert, Trav. Lab. Mat. Méd. Fac. Pharm. 13: 42 in syn. 1921. *Lippia alba* (Mill.) Britton & Wilson ex Mold., Phytologia 50: 262 in syn. 1982. *Lippia alba* (Mills) N. E. Br. ex Mold., Phytologia 50: 262 in syn. 1982.

Additional & emended bibliography: Link, Enum. Hort. Berol. 2: 126. 1822; C. Muell. in Walp., Ann. Bot. Syst. 5: 707. 1860; Bocq., Adansonia, ser. 1, 3: [Rev. Verbenac.; Baill., Rec. Obs. Bot.] 244 & 248. 1863; A. Gray, Synop. Fl. N. Am., ed. 1, 2: 338 (1878) and ed. 2, 2: 338. 1886; F. Muell., Sec. Syst. Census Austral. Pl. 1: 171. 1889; F. M. Bailey, Cat. Indig. Nat. Pl. Queensl. 35. 1890; Lace & Hemsl., Journ. Linn. Soc. Lond. Bot. 28: 318. 1891; Millsp., Field Columb. Mus. Publ. Bot. 1: 317. 1896; F. M. Bailey, Queensl. Fl. 4: 1172. 1901; Haines, For. Fl. Chota Nagpur 488. 1910; Brandis, Indian Trees, imp. 3, 503. 1911; Wehmer, Pflanzenst., ed. 1, 646. 1911; Hubert, Trav. Lab. Mat. Méd. Fac. Pharm. 13: [Verb. Util. Mat. Méd.] [31] & 42--44, pl. 3, fig. 5 & 6. 1921; E. D. Merr., Enum. Philip. Flow. Pl. 3: 380. 1923; Ekman, Arkiv Bot. Stockh. 22 (A): 51. 1929; Pio Corrêa & Pena, Dicc. Pl. Uteis Bras. 2: 257. 1931; Wehmer, Pflanzenst., ed. 2, 1021. 1931; Kanjilal, Das, Kanjilal, & De, Fl. Assam, imp. 1, 3: 461 & 552. 1939; Hundley & Ko in Lace, List Trees Shrubs Burma, ed. 3, 200. 1961; R. N. & I. C. Chopra & Varma, Suppl. Gloss. Indian Med. Pl. 56. 1969; Pio Corrêa & Pena, Dicc. Pl. Uteis Bras. 4: 40. 1969; Brandis, Indian Trees, imp. 5, 503. 1971; Bennet, Fl. Howrah 309--310. 1976; Bodley, Lab. Anthropol. Wash. St. Univ. Rep. Invest. 55: 20, 30, 31, 40, 41, 49, 50, 54, & 55. 1978; Angely, S. Amer. Bot. Bibl. 2: 678. 1980; J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 467. 1980; F. C. Seymour, Phytol. Mem. 1: 244. 1980; Medeiros, An. Congres. Nac. Bot. 32: 276. 1981; Mold., Phytologia 48: 155--158. 1981; Varma, Fl. Bhagalpur Dicot. 307. 1981; L. O. Williams, Ceiba 24: 332. 1981; D. S. & H. B. Correll, Fl. Bahama Arch. 1234--1236, fig. 531. 1982; Kanjilal, Das, Kanjilal, & De, Fl. Assam, imp. 2, 461 & 552. 1982; Liogier & Martorell, Fl. Puerto Rico 153 & 323. 1982; López-Palacios, Revist. Fac. Farm. Univ. Andes 22: 20 & 51. 1982; Mold., Phytologia 50: 243, 247, 250, 262, & 469 (1982) and 52: 114--119. 1982; Reis & Lipp, New Pl. Sources Drugs 252. 1982; Knobloch, Phytol. Mem. 6: 89. 1983; Mold., Phytologia 54: 233, 235, 236, & 240. 1983; H. N. & A. L. Mold. in Dassan. & Fosb., Rev. Handb. Fl. Ceyl. 4: 219. 1983; Raj, Rev. Palaeobot. Palyn. 39: 350, 364, & 383. 1983.

Additional illustrations: Hubert, Trav. Lab. Mat. Méd. Pharm. 13: [31], pl. 3, fig. 5 & 6. 1921; D. S. & H. B. Correll, Fl. Bahama Arch. 1235, fig. 531. 1982.

The *Lantana canescens* accredited to Kunth and to H.B.K. in the synonymy (above) apply to a valid species of *Lantana*, *L. canescens* H.B.K., while the homonym accredited to Bentham belongs in the

synonymy of *Lippia tepicana* Mold.

Recent collectors describe this plant as a highly aromatic low shrub or spreading subshrub, 1--2 m. tall, the branches few, long, slender, procumbent to trailing, sprawling, or arching, to 2 m. long, rooting at the tips, the leaves fragrant, with a lemon or caraway scent when crushed, rugose and pale-green above, gray-green beneath, the floral bracts pale grayish-green, and the flowers odorous. They have encountered it on savannas and saline plains, in dry or swampy places, in sandy soil, in dry or grassy thickets, along disturbed roadsides, in low ground and weedy fields,, on steep exposed or sandy riverbanks and ledges, along railroad embankments, at the edge of gallery forests, in mezquital, subtropical matorral and acahual, in fields of cultivated cucurbits, and on heavily wooded pine and oak slopes, from sealevel to 2200 m. altitude, in anthesis from January to April and June to November, and in fruit from January to March, as well as in June, August, September, and November. Wedster & Wilbur found it in "weedy areas at edge of palm grove with *Sabal texana*, *Celtis*, *Zanthoxylum*, *Tournefortia volubilis*, etc. on raised ground above level of cotton fields" in Texas. In Ecuador Dodson refers to the species as "common low plants in marshy areas along highways". Davidse & González found it "very common" in Venezuela and Runyon reports it "common" in the Rio Grande valley of Texas. Lott & Hernández found it inhabiting the selva mediana subperennifolia zone in Mexico, where it grows along with such genera as *Ficus*, *Coccoloba*, *Cynometra*, and *Couepia*. Iltis & Doebley found it growing with *Zea mays* ssp. *mexicana* in Mexico.

The corollas are described as having been "white" on Harris 11737 and Maxon & Killip 1636, "lavender and white" on Gilly & Hernandez 253, "lilac-white" on Pittier 2563, "lavender" on Leonard 8515, "pale-lavender" on Murry 428, "lavender with a yellow eye" on Lundell 10644, "pale-lavender with a central purple or brown spot" on Webster & Wilbur 3023, "lilac" on Brigada 369, Calzada & Marquez R. 4487, Harris 11911, Lott & Hernandez M. 1471, Maciel & Cordeiro 145, and Souza Nuncio 268, "light-lilac" on Bunting & Aristeguieta 6068, "lilac with a yellow center" on Davidse & Gonzalez 13941 & 14071, "lilac with an orange throat" on Harley 23020, "violet with a yellow throat" on Jiménez 1173, "violet" on Davidson & Martinelli CD.10689, "pale-violet" on Chiang 266, "purple" on Martínez Calderón 1924, Stevens 19992, and Wright 3159, "pale-purple" on Standley & Valerio 46697, "rose" on Casas & Molero FC.4419, Liogier & Liogier 27590, and Martínez Calderon 2228, "rosy-white" on Llates Q. 543, and "pink" on Dodson & Dodson 11229, Ferris 5927, Hart 1215, Hinton 12844, Mexia 819, Solomon 6136, and Staudt 30010. The Corrells (1982) describe them as "violet, pink, or white"; Millspaugh says (1896) "white with a yellow throat", while Pio Corrêa & Pena (1931) say "flores insignificantes, brancas".

Vernacular names recently reported are: basula, bush lippia, cidraero, daru haini ba, juanilana, lopong-brik, mastranso, mastrante, mastranto, mastranza, mastranzo, mostran, naga-aieri, orega, oregano, orozuz, pampa-oregana, pan poregano, pichae-lakri, pichas-bon, poley, salvia siga, sideraera, sonora lila, te de playa, wild mint,

and wild sage.

Liogier & Martorell (1982) assert that in Puerto Rico the species occurs in thickets at lower elevations, giving its extralimital distribution as the West Indies, Texas, and Mexico to Argentina. Ekman (1929) asserts that it is cultivated and escaped throughout Haiti, citing his no. 9808. Lace & Hemsley (1891) list it from Baluchistan. Merrill (1923) excludes it from the flora of the Philippine Islands. Haines (1910) lists it from Chota Nagpur, but comments that "It is an erect shrub 'so closely resembling *Lantana indica* that without fruit it is difficult to distinguish.'"; he describes the branches and leaves as softly strigose, the leaves ovate-oblong and crenate, the peduncles mostly opposite, and the bracts ovate, acuminate, and softly hairy.

The Corrells (1982) report that in the Bahamas it occurs in thickets, coppices, and gravelly waste places, flowering from March to October.

Kanjilal and his associates (1939) lists the species from Assam, where, he says, the leaves are used as a vegetable and it flowers "nearly all the year round", though mostly in bloom in February and March. Varma (1981) describes the corollas as "pinkish-purple" and avers that in Bhagalpur it is "Abundant in the district along the river Ganges where it grows in association with *Tamarix dioica* Roxb. and *Saccharum spontaneum* Linn. Also found in marshy lands and wet situations. The characteristic lemon scent is an important field character. A tropical American species that was introduced into Bengal in 1872--97. Since then it has migrated towards the west and became common in Bihar by 1921--25." He also reports that it flowers and fruits there throughout the year, citing Varma 322 & 1480. Millspaugh (1896) cites Millspaugh 478, 503, & 830 and Pringle 215 & 960 from Yucatán. Box reports that in Antigua the species is "very rare in the driest parts of the limestone region".

It should be noted that the Murry collection, cited below, exhibits the sharply pointed leaf-blade apices just as are present in the type collection. The Burgot 1423, Paul 25, and Shafer 2428 collection, cited below, exhibit leaves somewhat larger than usual for the typical form of this species (although not sufficiently large to justify their inclusion in f. *intermedia* Mold.); in Liogier & Liogier and Townsend 85 only some of the leaves are larger than normal; in Hanson 434 they definitely approach those of f. *intermedia*. Bruff 1408 and Harris 11737 are definitely anomalous collections; the unnumbered Levy collection bears striking habitual resemblance to *L. graveolens* f. *macrophylla* Mold., while the material grown from the seed of Teppner 81/453, grown at Graz, seems to represent *L. alba* f. *intermedia*.

Ferreira reports that in Peru *Lippia alba* is considered medicinal; López-Palacios (1982) asserts that in Venezuela it is used in the treatment of asthma; Standley and Souza Novelo state that an infusion of the leaves is used in Central America as a stomachic; Ruano reports its use as a sudorific. Reis & Lipp (1982) aver that in Guatemala it is "Reputed to be effective in treating coughs" and in Puerto Rico the "Natives believe this plant to be medicinal, it is used by them in baths." Williams (1981) states that "An in-

fusion of the leaves is used as a remedy for internal or respiratory ailments. Sometimes planted as an ornamental." Chopra & Varma (1969) tell us that "The strongly aromatic plant is used as a sage in cookery. The leaves, which are used as vegetable in Khasi Hills, are considered stomachic and nervine in some parts of Brazil and Paraguay." The leaves, on distillation, yield an essential oil containing 50% of the ketone lippione. They assert that the plant is found "in wet situations and muddy river banks from Bihar to Assam, Orissa, Madhya Pradesh, Nilgiris and Anaimalais up to 900 m."

Pio Correa & Pena (1931, 1969) give the following synonymy for this species, adopting *Lippia asperifolia* Rich. as its accepted name in their 1931 work and *Lippia geminata* H.B.K. in their 1969 work: *Lantana lavandulacea* Willd., *Lippia scabra* Hochst., *Verbena globiflora* L'Her., *Zapania globiflora* Poir., *Zapania lantanoides* Lam., *Zapania odorata* Pers., *Zapania odoratissima* Scop., *Lantana lippiioides* Hook., *Lantana mollissima* Desf., *Lantana odorata* Weigelt, *Lippia alba* Gardn., *Lippia citrata* Cham., *Lippia lantanoides* [Coul.], and *Lippia lippiioides* Hook. & Arn. Obviously they have here combined as one species the American *Lippia alba* and the African *L. javanica* (Burm. f.) Spreng. They list as vernacular names for the American element, alecrim do campo, cidrila, cidró, oregano, oroquez morada, salsa brava, salva salva brava, salva limão, and salvia. They speak of its medicinal properties: "Planta medicinal, antispasmódica, estomáquica e emenagoga, sucedânea da *Salvia*, e da *Melissa officinalis* em quase todo o nosso país. Contém saponina e nas folhas frescas um óleo essencial. -- Esta planta tem a propriedade de produzir raízes nos galhos, quando estes tocam no solo."

Because of the question in at least some quarters as to the actual valid application of the specific name here adopted for this taxon, it seems worthwhile to quote here Miller's original (1768) description: "LANTANA (Alba) caule inermi, foliis ovatis serratis, floribus capitatis alaribus sessilibus. Lantana with a smooth stalk, oval sawed leaves, and flowers growing in heads proceeding from the wings of the leaves, sitting close to the stalks. *Camara foliis urticae*, floribus minoribus albis, ex alis foliorum prodeuntibus. Houst. Camara with a Nettle leaf, and smaller white flowers proceeding from the wings of the leaves. The eighth sort was sent me by the late Dr. Houstoun, from Campeachy; this hath a slender shrubby stalk which rises three or four feet high, dividing into many slender, smooth, square branches, which are garnished with small, oval, sawed leaves placed opposite; from the wings of the stalks, at every joint, come out the flowers; they are small, white, and are collected in close heads; these come out by pairs, and sit close to the branches. This flowers at the same time with the former."

The corollas are described as having been "rose" on Hage 244 and Silva 4858, "lilac" on Vincelli 830, and "purple" on Stevens 12390, while Lobo and his associates describe the "inflorescence" as "lilac" and encountered the plant in "capoeira de terra firme". Davidse & González report the "corolla-lobes lilac, throat yellow, area between white". Hage records the vernacular name, "cidreira-

melissa", while Rose & Vilar report merely "cidreira".

Much of the material cited by me under this species in previous installments of these notes should be re-examined in view of the more recently described infraspecific taxa. It is also very probable that what has hitherto passed as *Lippia rondonensis* Mold. may actually represent a variety or form of *Lippia alba*.

Material of typical *L. alba* has been misidentified and distributed in some herbaria as *Lippia berlandieri* Schau., *Lantana involucrata* L., *Lantana macropoda* Torr., *Lantana recta* Ait., *Lantana trifolia* L., *Lantana* sp., and *Phyla stoechadifolia* (L.) Small. On the other hand, the Renvoize 3283 & 3656, distributed as typical *Lippia alba*, actually represents its var. *globiflora* (L'Hér.) Mold., while Davidse & Gonzalez 13779, Duss 4552 4765, Leonard & Leonard 15470, Liogier & Liogier 27590, and Prance & al. 16311 are f. *intermedia* Mold., Ostenfeld 30 is *Lippia americana* L., Baker 660, Case & al. 159, Chaves 55, Garnier 1069, Holway 617, Maxon, Harvey, & Valentine 7446, Pittier 1941, and Wright s.n. [Nicaragua] are *L. cardiostegia* Benth., González-Medrano 9041, Hanson 614 & 709, Johnston 2766, Medrano 1019, and Pringle 215 are *L. graveolens* H.B.K., Boege 616 and Miranda 677 are *L. oaxacana* Robinson & Greenm., Cook 106 & 107 are *Lantana involucrata* var. *odorata* (L.) Mold., Cory 51332, Gentry & Engard 23227, and González-Medrano 9040 are *Lantana macropoda* Torr., Hanson 346 is *Lantana macropoda* f. *parvula* Mold., Gaumer 478, Gold 529, Gonzalez-Medrano & al. 1789, 9858, & 9863, Hiriart & al. 102, and Medrano & al. 8969 & 9642 are *Lantana microcephala* A. Rich., Ortega 4136 is *Lantana notha* Mold., and Gaumer 830 and Gonzalez-Medrano & al. 1781 are *Lantana velutina* Mart. & Gal.

Additional citations: TEXAS: Cameron Co.: J. M. Coulter 113/364 in part (W--81918); G. L. Fisher 352 (W--1224999), 41011 (W--1825517); Hanson 434 (W--982796); C. L. Lundell 10644 (W--1926927); R. Runyon 228 (W--1114276), 898 (W--1287408); Shiller 425 (W--1812066); Tharp 1847 (W--1203137); Townsend 85 (W--279236); Webster & Wilbur 3023 (W--2067828). Montague Co.: Havard s.n. [Havana Ranch, Sept. '84] (W--155943). Wharton Co.: J. K. Small s.n. [April 12, 1925] (W--1739015). MEXICO: Campeche: Houston s.n. [Bailey Hort. neg. 5057] (Ba--photo of type, Ld--photo of type, Mi--photo of type, W--photo of type). Chiapas: Matuda 5213 (Me--86180), 16645 (Me--86178), 17502 (Me--86179); Ton 2506 (Me--141195). Guerrero: Boege 882 (Me--96103). Jalisco: Duncan 2556 (Mi); Lott & Hernández M. 1471 (Ld); E. W. Nelson 4142 (W--203180); Edw. Palmer 33 (W--81847), 33/686 (W--81845); Pringle 11085 (W--400469); Puga & Carvajal H. 9963 (Me--254175); Rose & Hough 4798 (W--346795). Michoacán: Hinton 12844 (Me--100235); Iltis & Doebley 186 (N); Langlasse 168 (W--385760). Nayarit: Ferris 5927 (W--1491689); Mexia 819 (W--1317834). San Luis Potosí: Crutchfield & Johnston 5135 (Me--59087). Sinaloa: Ortega 5650 (W--1208681); Rose 1862 (W--300745); Rose, Standley, & Russell 14124 (W--636985). Tabasco: Gilly & Hernández 253 (Me--76537). Tamaulipas: Berlandier 2304 (W--1169437); R. M. King 4035 (W--2364824); Medrano 548 (Me--127776); Pringle 1960 (W--155944); Viereck 1110 (W--1687554). Veracruz: Brigada Veg. Acuat. 369 (Me--204308); Calzada & Marquez R. 4487 (Ws); Chiang 266 (Me--215664);

Martínez Calderón 1924 (Me--145317), 2228 (Me--145289); C. L. Smith 1332 (Mi). Yucatán: Bruff 1408 (Me--46995); Souza Novelo 268 (W--2087139). Zacatecas: Taylor & Taylor 6052 (W--2914865). State undetermined: Collector undetermined s.n. [San Antonio, Lake Chapala, Feb. 8, 1893] (W--1082142); Liebmann 11356 [Rio Vuellos] (W--1315107). GUATEMALA: Alta Verapaz: Cook & Griggs 561 (W--408269). Escuintla: J. D. Smith 2062 (W--1322923). Guatemala: Ruano 329 (W--1168394). Zacapa: Bartlett 360 (W--576980). HONDURAS: Colon: Murry 428 (E--2889912). EL SALVADOR: La Libertad: Calderón 1507 (W--1168794); N. L. H. Krauss 1394 (W--2926891). NICARAGUA: Jinotega: Sandino 2 (Ld). Madriz: Vincelli 830 (Ld). Managua: Stevens & Stergios 166 (Ln--242454). Matagalpa: W. D. Stevens 9879 (Ld). Zelaya: W. D. Stevens 12390 (Ld). State undetermined: Lévy s.n. (P). COSTA RICA: Guanacaste: Standley & Valerio 46697 (W--1254801); Tonduz 13627 (W--472335). PANAMA: Canal Zone: Pittier 2563 (W--677226). Chiriquí: Pittier 3329 (W--716108), 5122 (W--715304). Colón: Fendler 220 (W--81849). Panamá: Paul 331 (W--1589496). Province undetermined: Paul 25 (W--1586924). CUBA: Las Villas: Britton, Britton, & Wilson 5492 (W--658777); Ekman 16988 (W--2113436); J. G. Jack 8407 (W--1556373). Oriente: León 11917 (W--2289318). Province undetermined: C. Wright 3159 (W--81753, W--1361154). JAMAICA: W. Harris 11737 (W--790799), 11911 (W--790959); Harris & Britton 10593 (W--656410); Maxon & Killip 1636 (W--1046637). HISPANIOLA: Dominican Republic: Fuertes 586 (W--658428); J. J. Jiménez 1173 (W--1883234); Liogier & Liogier 27590 (N, N). Haiti: Ekman H.3514 (W--1303743). PUERTO RICO: Eggers 1166 (W--1322918); Sintenis 786 (W--1322920); Velez 2801 (W--1906741). PUERTO RICAN OFFSHORE ISLANDS: Vieques: Shafer 2428 (W--759979). LEEWARD ISLANDS: Antigua: Box 1570 (W--1714534). VENEZUELA: Apure: Davidse & Gonzdlez 13779 (Ld), 13941 (E--2985541), 14071 (E--2985538). Zulia: Bunting & Aristeguieta 6068 (Ld). FRENCH GUIANA: Burgot 1423 (Cy). ECUADOR: Guayas: Dodson & Dodson 11229 (Ld). Moreno-Santiago: J. Hart 1215 (W--2936995). PERU: La Libertad: Ferreyra 20003 (W--2977605). Lambayeque: Llates Q. 543 (Ld). Pasco: Teppner 81/226 (Ld), 81/453 (Ld). BRAZIL: Arapa: Austin, Nauman, Rabelo, Rosdrio, & Santos 7381 (N, W--2937864). Amazonas: F. J. Hermann 11282 (W--2592959). Bahia: Hage 244 (Ld); Harley, Bromley, Carvalho, Nunes, Hage, & Santos in Harley 23020 (W--2965504). Goiás: Silva 4858 (N). Maranhão: Rosa & Vilar 2964 (N). Matto Grosso: Mizoguchi 346 [Herb. Oomoto Kam. Bot. Gard. 14585] (E--2978850). Pará: Archer 8266 (W--2592876); Davidson & Martinelli CD.10689 (Ld, N, W--2986371); Lobo, Vilhena, & Ribeiro 158 (N); Maciel & Cordeiro 145 (N). BOLIVIA: El Beni: H. H. Rusby 916 (W--1934994); Solomon 6136 (Ld). PARAGUAY: Casas & Molero FC.4419 (E--2978895. N); Schinini & Bordas 16503 (N). ARGENTINA: Corrientes: Cristóbal, Krapovickas, Gonzdlez, & Tressens 1480 (Mi, Ws). Misiones: Cabrera, Botta, Kiesling, Rotman, Tur, & Zuloaga 28645 (N). Soto Island: Renvoize, Wilmot-Dear, & Tur 3656 (N). CULTIVATED: Canal Zone: Standley 30010 (W--1219019). Dominican Republic: Ekman H.15802 (W--1555140). Haiti: E. C. Leonard 8515 (W--1149982). Nicaragua: W. D. Stevens 19992 (Ld). Panama: Heriberto 73 (W--1084294); Standley 30528 (W--1219348). Peru: Treacy & Alcorn 410 (F--1925498).

[to be continued]



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