TAXONOMY OF LANTANA SECT. LANTANA (VERBENACEAE):
II. TAXONOMIC REVISION

Roger W. Sanders
Bryan College # 7802
721 Bryan Drive
Dayton, Tennessee 37321, U.S.A.
rsanders@bryan.edu

ABSTRACT


Due to a long history of cultivation, hybridization, and invasiveness, the taxonomy of *Lantana* L. sect. *Lantana* resists partitioning into easily identified species (see Sanders 2006 for review). While some workers might prefer the convenience of recognizing a single highly variable species, *Lantana camara* L., previous biosystematic studies (Sanders 1987a, 1987b, 1987c, 1989) have shown the presence of morphologically discrete diploid taxa having coherent ecological and geographic ranges where they appear to have speciated in situ. These studies have been corroborated by a recent molecular analysis of the taxa in Florida (Maschinski et al. 2010). The present study attempts to delineate the indigenous taxa of sect. *Lantana*, even in the face of rampant hybridization due to human-induced ecological disturbance and the failure of odd polyploidy as a breeding barrier in this group. This second paper in the series builds on the first (Sanders 2006), which detailed the typification of species of sect. *Lantana*. As suggested by Sanders (2006), the identity of individual specimens constituting the hybrid plexus found growing outside cultivation today cannot be unraveled by morphology alone, and it may be recalcitrant even to molecular genome analysis. Thus, variation encompassing the indigenous species now connected by hybrids may appear to be constituted more of adaptive peaks rather than bell curves surrounded by discontinuity. Furthermore, no phylogenetic analysis has been attempted here because the outgroup relationships of sect. *Lantana* are not understood, and the significant trichome and inflorescence characters are homoplastic with regard to potential outgroups.

The rank of series is established only for grouping species of presumed origin by divergence from the ancestor of sect. *Lantana*. Species of interseries hybrid origin are not placed into series and are listed separately. These species are presumed to have originated by natural selection acting on the variable pool of original hybrids resulting in one or a few closely similar phenotypes and, thus, may not be strictly intermediate to the
parental species. The surviving phenotype has become self-propagating and has attained a geographic range exceeding the original area of sympatry. Spontaneous and cultivated hybrids that have received Latin names but do not behave biologically as species are in a third separate list.

I view **varietas** as the least inclusive taxonomic rank composed of a minimum of one breeding population (as inferred from available ecological data) having geographic coherence in a limited part of the species range and imperfect discontinuity from similar, geographically adjacent taxa within the species. **Subspecies** is used either to group varieties or to recognize a taxon within a species with geographic coherence over an extensive geographic range (e.g., usually several islands or subcontinental areas) and having imperfect discontinuity or minor differences from similar, geographically adjacent subspecies. One impetus to employ subspecies in **Lantana** has been to avoid instability in infraspecific names that could be caused by the subsequent discovery of poorly known varietal names, of which there are many.

**MORPHOLOGICAL TAXONOMIC CRITERIA AND ANALYTICAL CAVEATS**

*Caveats for identification and descriptions are given in italics.*

**Prickles.**—Whereas a majority of species either lack prickles or bear only small weak straight or recurved prickles, pronouncedly stout recurved prickles are inconsistently present (varying among herbarium collections and field populations) in the remaining species, notably **Lantana camara** subsp. **aculeata**, **L. hirsuta** subsp. **amazonica**, **L. horrida**, **L. nivea**, **L. planaltensis**, **L. strigocamara**, **L. urticoides**, and **L. viscosa**. The tendency to produce prickles appears more pronounced in hybrids than in most indigenous species.

**Trichomes.**—The form of trichomes on the abaxial leaf surfaces (filiform vs. setiform vs. strigiform) and their length are highly correlated with ecological and geographic coherence of indigenous taxa and provides one of the main criteria to delimit series. *Trichomes in the adaxial groove of the midrib and some secondary veins can be nearly twice as long as those on the remaining tissue. Therefore measurements in the key and descriptions for adaxial hairs are taken between the secondary veins. Likewise, hairs on the nodal lines of the stems are often about twice as long as other hairs along the stem and are excluded from measurements in the key and descriptions.*

Filiform hairs and setae are both erect from the base with the setae differing primarily by greater length and stouter, and a more conical proximal portion. Both types may be somewhat flexuous, arching or curly distally.

Strigae are stiff conical hairs that are geniculately bent in the proximal quarter or third with the remaining distal portion directed antorsely. On the adaxial leaf surfaces, the antorse portion is more or less ascending and arching. The broadened base emerges from a buttressing ring of epidermal cells that form a pustulate base. Especially in Ser. *Strigosae* or taxa of hybrid origin with genes of its species, the strigae often are deciduous leaving the pustulate bases as rough points. In some species the bases enlarge with age and become vitreous (clear or white). In taxa and hybrids with strigae on the abaxial surface, the strigae lack the buttress base, arising directly from the epidermis and the antorse portion is held more or less parallel to the epidermis. In some **Lantana nivea**, they are so short that the antorse portion is not well developed, appearing as a short point angling upwards. In recognizing the abaxial strigae, one must also be aware that filiform or setiform hairs that are crushed against the surface during pressing can be mistaken for strigae, which occur consistently over the pertinent surfaces. The co-occurrence on the abaxial surfaces of filiform hairs or setae with strigae is a clear indication of the hybrid nature or heritage of the specimen at hand.

The presence of stipitate glands on the twigs, peduncles, petioles, and even leaf-blades is variable within several taxa, notably **Lantana camara** subsp. **portoricensis**, **L. horrida** subsp. **zanonii** and subsp. **tiliifolia**, **L. micrantha**, **L. paraensis**, and **L. planaltensis**. While glands are consistent in **L. leonardiorum** and **L. viscosa**, those species are not delimited on the basis of glands. Therefore, the consistent presence of glandular hairs in **L. camara** subsp. **glandulosissima** is not used to segregate it as a species; **L. camara** is simply variable in this regard.

**Leaves.**—The lateral halves of the blades usually are not mirror images, with the widest point in many taxa in the proximal third on one half and middle third on the other half, making it difficult to characterize
shape. Bases of the blades in almost all cases abruptly taper to a narrow wing onto the petiole distally. Leaf-blades are considered to be triplinerved (as opposed to pinninerved) if the basal pair (or two pairs) of secondary veins are set at sharper angles than the more distal secondary veins, with the distance to the more distal veins greater than among them. Nigrescence refers to a distinct blackening of mature leaves occurring during drying for preservation, not normal senescence. While such blackening is diagnostic for certain species, newly emerging leaves can blacken in most species. Leaves atypical for size, shape, bases, apices, and venation are present on most plants. Leaf shape, size, and vestiture traits are measured only on fully developed, non-senescent leaves. Measurements for marginal teeth are taken mid-margin, avoiding the reduced teeth near the base and apices of the blades.

**Inflorescences.**—The basic structure of the inflorescences has been discussed in detail (Sanders 2001). Peduncle length in the key and descriptions are given for fully opened inflorescences and infructescences.

Bracts generally decrease gradually in length and width from the proximal to the distal series that seemingly spiral up the receptacle. The distal (inner) bracts are about 2–4 mm long and about 0.3–1 mm wide in most species and, thus, are not detailed in the descriptions. The exceptions appear to be diagnostic in Ser. *Spicatae* and a few taxa in Ser. *Lantana* in which almost all the bracts are the same dimensions. In some taxa there is an abrupt diminution from the proximal (basal or outer) two or three series of bracts to the more distal series. Shape and size of the proximal bracts appear to be consistent and diagnostic, with the exception of one or rarely two subfoliaceous bracts that develop sporadically in almost any taxon; hence, these atypical bracts are excluding from the measurements.

**Flowers.**—Corolla color has been discussed by Sanders (2001, 2006). It often changes from bud to early opened flowers to late flowers to fading flowers, especially in plants that produce both yellow to carmin pigments and purplish pigments. The throat is often not only different but changes during flower maturation. This developmental variation is often further complicated by intraspecific variability. Unfortunately, detailed information is usually lacking from collection labels. Corolla shape is nearly uniform in the group, but size appears to be consistent within taxa when measured from fresh material. However, dried corollas are often shrivelled and difficult to measure; in the descriptions, “fresh” size has been extrapolated from dried specimens.

**Cytology.**—Chromosome numbers are not given in the descriptions because those for only a few taxa are known (See Sanders 1987a, 1987b, 1989).

**Phenology.**—Flowering time is not given in the descriptions because any species can flower anytime during the year whenever moisture is available. This is true even of species native of subtropical areas with frost seasons when the species are grown in frost-free areas.

**TAXONOMIC TREATMENT**

See Sanders (2001) and Sanders (2006) for further characterization of *Lantana* and comparison of sect. *Lantana* with other sections. Also, see Sanders (2006) for details of species typifications, which are supplemented here only as needed. Please note that, in the type and other specimen citations, the abbreviation “di” refers to a digital image made available online or as a courtesy by the cited herbarium. Many thousands of specimens representing this group are in herbaria awaiting identification. For this study only a small sample, primarily from major U.S. institutions, has been selected for annotation and citation here as these specimens will be most easily available for consultation by other professionals. Even so, annotations made during quick visits to herbaria may differ than those cited herein as a result of reflection and more careful study of digital images that I made or were sent to me. Selection of specimens was to establish only distribution limits of the species, as well as document as many hybrid combinations as possible, thus, resulting in a falsely apparent predominance of hybrids in some cases. To assist those attempting to identify specimens of sect. *Lantana*, a richly illustrated interactive key (in which vernacular names are also discussed and provided) has been made available online (Offutt & Sanders, 2012).

*Lantana* L. sect. *Lantana*

Shrubs or rarely treelets, erect to decumbent or subscandent, height (or length) (0.1–)0.5–3 m (to 4 or even 6 m in subscandent, especially aggressively naturalized forms); the internodes usually less than to almost twice as
long as leaves (mostly twice to thrice as long in L. splendens), with or without weak to stout, conical to recurved prickles; vestiture antrorsely strigose to puberulent, pilose, setose, glabrescent, or stipitate-glandular and thus markedly viscid, the trichomes of twigs, peduncles, and petioles often noticeably longer and stiffer than those on remaining herbage. Leaves opposite or sporadically ternate, petiolate, simple; blades usually ovate or lanceolate to elliptic, usually hardly to moderately rugose, i.e., puckered between tertiary veins (strongly so in some L. horrida and usually bullate in L. leonardiorum, which is puckered between the secondary veins), usually longitudinally flat or somewhat undulate (incurred in L. depressa); base attenuate to cordate; apex attenuate, acuminate, acute, obtuse, or occasionally rounded; margin usually finely serrate-crenate but coarsely so in L. urticoides and some L. hirsuta and L. kingii or subentire in some L. cujabensis, flat to revolute, usually green (often purple-tinged in L. kingii); adaxial surface strigose (strigae typically ascending distally to antorsely bent, ± appressed in L. kingii, flaccid and strongly appressed in L. hodgei), strigose-villous, setose-villous, or nearly glabrous; abaxial surface strigose, pilose, puberulent, setose, or glabrescent, with the veins green to pale brown or sometimes nigrescent or occasionally tinged with purple (frequently purplish in L. kingii). Inflorescences pedunculate, capituliform spikes, one (or sporadically two in several species) per subtending leaf; peduncles about a third to twice the length of leaves (up to four times in some L. horrida); axis (common receptacle) ellipsoid or fusiform, spongy; bracts nearly always subtending a flower, linear triangular or linear lanceolate to oblong, elliptic, or spatulate, ± appressed to spreading or reflexed. Flowers in several series, two to three series in anthesis at a time, zygomorphic; corolla salverform with inflexed tube and four unequal lobes, pigmented either yellow to reddish or pink to purple or admixtures of both (in hybrids or taxa of hybrid origin) or lacking. Drupes usually blue-black (but sporadically described by collectors as dark violet-purple), usually with a metallic iridescence; pulp watery-mealy; endocarp turbinate-obpyriform with an inflated commissure and external circumferential ridge below the seed chambers. x=11.

KEY TO SPECIES OF LANTANA SECT. LANTANA

BEFORE ATTEMPTING TO USE THE IDENTIFICATION KEY OR DESCRIPTIONS, SEE CAVEATS ABOVE.

1. Abaxial leaf-surface antrorsely strigose-scabrous to nearly glabrous, consisting only of or strongly dominated by strigae.
2. Proximal bracts 2–8 mm wide, with 5–7 veins from the base.
3. Capitula not elongating by prolonged initiation of additional flowers, remaining hemispheric; bracts ± obtuse, acute and rounded at very tip, or briefly acuminate, appressed to spreading, appearing to form an involucre; cilia, if present on bracts, usually no more than 0.5 mm; corollas yellow or orange aging reddish (rarely intensely reddish purple)
4. Leaf-blades ovate-elliptic to lanceolate-elliptic or trullate, averaging 1.7–2.5(–3) times longer than wide, the base usually induplicate or having halves incurved from the base.
5. Proximal bracts (excluding one or two subfoliar outermost ones or those of gall-transformed heads) widest near or just below middle or in distal half (sometimes so in L. splendens, see below), persistent in fruit.
6. Leaf-blades bright, dark, or dull green abaxially, nigrescent, ovate-elliptic, induplicate or having halves incurved at maturity; larger strigae of the abaxial leaf-surface 0.5–1 mm; twigs setulose with spreading hairs about 0.5–1.5 mm; proximal bracts ca. 3–5 mm, elliptic-lanceolate
7. Leaf-blades distinctly whitish or pale green below (though not glaucous), not nigrescent, usually ovate or ovate-triangular, rarely (especially if less than 2 cm long) obovate or ovate-elliptic, ± flat, not having halves incurved at maturity; larger strigae of the abaxial leaf-surface 0.1–0.4(–0.6) mm; twigs glabrescent with antorse hairs 0.3–0.7 mm; proximal bracts ca. 6–10 mm long, spatulate or oblanceolate
8. Proximal bracts (excluding one or two subfoliar outermost ones or those of gall-transformed heads) widest at or just above base, deciduous after flowering.
9. L. depressa
10. L. kingii
11. L. nivea
12. L. paraensis
13. L. cujabensis
14. L. hirsuta
15. L. leonardiorum
16. L. ovatifolia
17. L. splendens
18. L. hodgei
19. L. kingii
20. L. attem
1. Abaxial leaf-surface not exclusively or dominantly antrorsely strigose-scabrous but setose, pilose, velutinous, puberulent, pannose, viscid, or glabrescent, the vestiture varying from having hairs that are exclusively erect (± erect from basal insertion, spreading from surface of lamina or vein from which they arise, filiform or setaceous, gland-tipped or not, abruptly to very sparse, ca. 0–12/mm² (under 10X magnification those on the higher order veins do not appear to be papillae); abaxial surface of leaf-blade whitish-green (but not glaucous); stems usually lacking stout, recurved prickles.

8. Leaf-blades mostly 1–5(–7) cm long, on adaxial surface of mature and older leaves the circular bases of strigae 0.3–0.5 or more mm in diam., conspicuously vitreous-pustulate, often nearly filling whole areole; corolla tubes ca. 5–8 mm long; proximal bracts mostly oblong-lanceolate (outermost 1 or 2 oblong-ovate or oblanceolate), 2–4(–5) mm long; virgate or divaricately branched shrubs

7. L. splendens

9. Leaf-blades strigose or scabrous, papery to subcoriaceous; hairs of adaxial leaf-surface geniculately bent at very base, flaccid, strongly appressed to surface and often deciduous; peduncles a third or less as long as leaves

10. L. kingii

11. L. ovatifolia

12. Capitula elongating, becoming cylindric; corollas usually pink to deep reddish purple (sometimes pale yellow in throat only), occasionally white becoming infused with purple (rarely yellow to orange red in L. parensis).

13. Corolla tubes briefly or not exerted beyond bracts, 2–4 mm; corolla tubes elongating by expansion of nodes between flowers/fruits; bracts often deciduous leaving only postulate bases; leaf-blades abaxially distinctly whitish or pale green (seemingly but not actually glaucous); leaf-teeth sinuses 1–2.5 mm deep; stems upright; corollas opening yellow aging orange or reddish-orange

14. L. viscosa

15. L. micrantha

16. L. bahamensis

17. L. planaltensis

18. L. hodgei

19. L. paraensis

Abaxial leaf-surface not exclusively or dominantly antrorsely strigose-scabrous but setose, pilose, velutinous, puberulent, pannose, viscid, or glabrescent, the vestiture varying from having hairs that are exclusively erect (± erect from basal insertion, spreading from surface of lamina or vein from which they arise, filiform or setaceous, gland-tipped or not, distally arching-curved or flexuously curled) without strigae present to having a codominant mixture of erect hairs and strigae (occurs in hybrids and some species of hybrid origin).

Capitula elongating, becoming cylindrical; corollas usually pink to deep reddish purple (sometimes pale yellow in throat only), occasionally white becoming infused with purple (rarely yellow to orange red in L. parensis).

Corolla tubes briefly or not exerted beyond bracts, 2–4 mm; corolla tubes elongating by expansion of nodes between flowers/fruits; bracts often deciduous after flowering, but if persisting, then usually rapidly becoming reflexed without strigae present to having a codominant mixture of erect hairs and strigae.

Leaf-blades mostly 1–5(–7) cm long, on adaxial surface of mature and older leaves the bases of strigae 0.3–0.5 or more mm in diam., conspicuously vitreous-pustulate, often nearly filling whole areole; corolla tubes ca. 5–8 mm long; proximal bracts mostly oblong-lanceolate (outermost 1 or 2 oblong-ovate or oblanceolate), 2–4(–5) mm long; virgate or divaricately branched shrubs.
15. Leaves-blades pinninerved, not distinctly nigrescent (except in some \textit{L. urticoides}); adaxial surface dull (except somewhat lustrous in some \textit{L. urticoides}); abaxial surface lacking strigae (except in many interspecific hybrids), exclusively of filiform, glandular, or setiform hairs.

17. Leaves 1–1.5 times longer than wide, ± rotund, deltate or broadly ovate with conspicuous spreading acute teeth, the sinuses mostly 2–5 mm deep; adaxial leaf-surface, at least on older leaves noticeably vitreous-pustulate, the bases of the strigae mostly 0.3–0.5 mm in diam; abaxial leaf-surface with long setaceous hairs restricted to the midrib and secondary veins, these gradually reduced in length from base of midrib (where 1.5–2 mm long) toward margin (on midrib and secondary veins to ca. 0.7 mm long), shortest hairs (0.2–0.5 mm long) restricted to veinlets and areoles; proximal bracts mostly 7–12 mm long, ob lanceolate or spatulate, mostly 1.5–3 mm wide, widest in distal half or near middle, conspicuously persistent and reflexed in fruit.

18. Hairs of abaxial leaf-surface setiform, ca. 0.7–1.5 mm, straight and erect, sinuous, or antrorsely arching, restricted mostly to midrib, secondary, and tertiary veins, without sparse understory of shorter (0.1–0.5 mm), softer filiform hairs; adaxial surface setose to villous dominated by antrorse setaceous hairs 1–2 mm between the secondary veins, sometimes these also accompanied by an understory of shorter hairs; young twigs (also petioles and peduncles) with spreading hairs (1.2–1.5–2.5 mm).

19. Young twigs and peduncles usually viscid and sparsely setose, dominated by dense, conspicuous, stipitate glands to ca. 0.5 mm; proximal bracts mostly 4–6 mm long, oblong-elliptic or -lanceolate, covered with hairs ca. 1 mm and usually marginally ciliate with hairs (1–1.5–2 mm)

20. Adaxial leaf-surface with a canopy of hairs between secondary veins mostly 0.3–1 mm, marginally ciliate with hairs 0.8–1.5 mm or these lacking (except in interspecific hybrids); proximal bracts mostly 5–10 mm long, linear-lanceolate or linear-spatulate, covered with hairs 0.3–1 mm, usually marginally ciliate with hairs 0.8–1.5 mm or these lacking.

21. Plants erect or trailing, laxly or openly branched, leaf-blades ovate to broadly elliptic to lanceolate-deltate, mostly 1–2 times longer than wide; teeth usually 6–10–35 per side.

22. Plants erect, low and stiffly, densely branched; leaf-blades narrowly triangular to narrowly elliptic, mostly 2–3 times longer than wide; teeth usually 3–6 per side.

A. \textit{Lantana} sect. \textit{Lantana} series \textit{Lantana}. Type: \textit{Lantana camara} L.

Adaxial leaf surfaces strigose-villosulous, the hairs less than 1.0 mm; abaxial leaf surfaces pilose, often densely so, the hairs occurring on veins and non-innervated tissue, filiform, 0.1–0.5 mm. Inflorescences arrested and remaining hemispheric, prolate-globose in fruit.


Shrubs erect or rounded, open; stems 0.5–3 m; branches ascending and several; twigs, peduncles and often petioles puberulent, pilose, setulose, stipitate-glendular, or glabrescent, the hairs 0.1–0.5(–1) mm. Leaf-blades...
broadly ovate or oblong-deltate to elliptic-lanceolate, (1–)3–8(–16) cm long, the length (0.9–)1.5–2.5 × width, usually not nigrigenous, papery, pinninnerved; base subcordate, truncate, rounded or broadly cuneate, usually very briefly, narrowly cuneate onto petiole at very base; apex acute to acuminate, occasionally attenuate or rounded; marginal teeth 6–35(–50) per side, rounded to acute, spreading to appressed, sometimes with tips recurved, with sinuses 0.2–2 mm deep; adaxial surface dull, antrorsely strigillose to strigose-pilose or with stipitate glands mixed in, the hairs occurring on veins and intervening tissue, thin canopy of hairs only 0.2–0.5 mm (occasional hairs 0.7 mm in subsp. aculeata) with understory of shorter hairs not well developed, 10–90(–120)/sq. mm, not noticeably vitreous-pustulate (except in some subsp. aculeata), the circular bases of the stipigae ca. 0.1–0.2(–0.3) mm in diam.; abaxial surface duller green than adaxial surface, moderately densely (occasionally sparsely) pilose, the hairs on all veins and intervening tissue, 0.2–0.5 mm, all about same length, (10–)40–250/sq. mm. Inflorescences remaining hemispheric; peduncles 0.3–2 × leaf length. Proximal bracts linear-lanceolate or ovate-elliptic to obovate, 2–8(–10) mm long, 0.5–1.5(–2) mm wide, widest near base to above middle, with 3 veins from the base, appressed or spreading, deciduous after flowering; apex attenuate to rounded; indument pilose to strigillose, sometimes stipitate-glandular, somewhat or not ciliate, the longest hairs ≤ 0.5 mm. Corolla yellow to or aging reddish orange (infused with pink or purple in subsp. aculeata), rarely white; corolla tube 4–12 mm.

**Distribution and habitat.**—Mexico, Central America, West Indies, and northern South America; cultivat-ed and escaped pantropically, especially in Australia; disturbance openings in tropical evergreen and deciduous forest, open pine forest, thorn shrubland, savanna; 0–2000 m.

### KEY TO SUBSPECIES OF LANTANA CAMARA

1 Twigs, petioles, and peduncles densely stipitate-glandular and adaxial leaf surfaces with stipitate glands mixed with eglandular trichomes  
   
   e. subsp. glandulosissima

1 Twigs, petioles, and peduncles without or occasionally with scattered stipitate glands but not densely and predomi-nantly so and adaxial leaf surfaces without glandular trichomes.

2 Corollas with admixture of yellowish or orange pigments with rose or purplish pigments or opening yellowish and aging to purplish, or all corollas pink to deep reddish purple; stems often with stout, recurved prickles (subspecies of complex hybrid origin, variable for characters that differentiate among other subspecies; plants with only yellow or orange pigments that do not fit the remaining subspecies should be placed here)  
   f. subsp. aculeata

2 Corollas yellow to reddish orange (rarely white) without admixture of rose or purple pigments; stems usually lacking stout, recurved prickles but weak, ± straight ones sometimes developed.

3 Inflorescence bracts with all series about 2–4 mm long or only the proximal series 5–6 mm long and distal series abruptly shortened to about half that length; corolla tubes mostly 4–8 mm long in well pressed or fresh flowers.

4 Inflorescence bracts consistently ovate to obovate, broadest near or above middle; leaf-blades mostly 3–8 cm long, finely serrate-crenate with mostly 15–30 appressed teeth per side, the teeth sinuses usually 0.2–0.7 mm deep (if leaf smaller with fewer teeth, then teeth very small); twigs and peduncles without stipitate glands mixed among the eglandular hairs  
   a. subsp. camara

4 Inflorescence bracts mostly lanceolate-linear to triangular-oblong, broadest near the base; leaf-blades mostly 1–3 cm long, rather coarsely serrate-dentate (for their size) with 6–12(–15) spreading teeth per side, the teeth sinuses usually 0.7–1.5 mm deep; twigs and peduncles often with stipitate glands mixed among the eglandular hairs  
   b. subsp. portoricensis

3 Inflorescence bracts with proximal series usually 5–10 mm long and gradually shortened to distalmost series; corolla-tubes mostly 8–12 mm long in well pressed or fresh flowers.

5 Young stems and peduncles hispid with spreading or retorse, stiff setae 0.5–1 mm long (peduncles sometimes with stipitate glands mixed in); margins of leaves with teeth mostly fewer than 20 per side, the sinuses nearly 1 mm or more deep; dominant hairs of adaxial leaf surface ca. 0.5 mm  
   c. subsp. moldenkei

5 Young stems and peduncles puberulent with ascending soft hairs 0.1–0.5 mm long (mostly 0.3 mm); margins of leaves with teeth mostly 20–35 per side, the sinuses about 0.5 mm deep; dominant hairs of adaxial leaf surface ca. 0.3 mm or less  
   d. subsp. moritziana


Stems usually without prickles or with few weak, straight ones; twigs, peduncles and often petioles moderately to densely covered with antrorse to ascending, curled or straight filiform hairs, the hairs 0.1–0.5 mm.

Leaf-blades ovate or ovate-triangular to lanceolate-triangular or elliptic-lanceolate, widest near base, near proximal third, or just below middle, (1–)3–8(–10) cm long, the length (1.2–)1.5–2.5 × width; marginal teeth (0.5–)0.7–1.5 mm deep; adaxial surface antrorsely strigose-pilose, the hairs 0.1–0.5 mm. Peduncles 0.5–1.2 × leaf length. Bract series almost twice the length of distal series; proximal bracts obovate to oblanceolate, ovate-elliptic, or oblong, 2–4 or 3–6 mm long, 0.8–1.5(–2) mm wide, widest near or above middle; apex often obtuse to rounded, sometimes acute (rarely acuminate). Corolla yellow to or aging reddish orange; corolla tube 5–8 mm; corolla limb 4–7 mm in diam.

Distribution and habitat.—West Indies (Cuba, Jamaica, Hispaniola, Caymen Is., Bahama Is.), Gulf and Caribbean coast and foot hills of Mexico from Veracruz across to Nicaragua; thorn and sclerophyll shrubland/woodland, thickets, and pine woodland on thin calcareous soils; 0–400 m. See comments under Lantana camara subsp. glandulosissima and in Sanders (2006).

Selected specimens examined: BAHAMA ARCHIPELAGO. Acklins Island: (GH). See comments under woodland, thickets, and pine woodland on thin calcareous soils; 0–400 m.

See comments under Lantana camara subsp. glandulosissima and in Sanders (2006).
strigillose to strigose-pilose, the hairs 0.1–0.5 mm. **Peduncles** 1.2–2 × leaf length. **Bract series** all similar or proximal series almost twice the length of distal series; proximal bracts linear-lanceolate to triangular-oblong or oblanceolate-oblong, 2–4 or 5–6 mm long, 0.5–0.8(–1.3) mm wide, widest near the base or sometimes above middle; apex acute. **Corolla** yellow to or aging reddish orange; corolla tube 4–7 mm; corolla limb 4–7 mm in diam.

**Distribution and habitat.**—Puerto Rico (including Mona Island) and Virgin Islands; thorn and sclerophyll shrubland/woodland, thickets, and disturbance openings on thin calcareous soils, especially in karst topography; 0–600 m.


**Stems** usually without prickles or with few weak, straight or recurved ones; twigs, peduncles and often petioles moderately covered with spreading, antrorse, or retrorse, stiff or flexed setae or strigae, the hairs 0.5–1 mm, mostly ca. 0.8 mm. **Leaf-blades** broadly ovate or oblong-ovate to lanceolate, oblong-lanceolate or elliptic-lanceolate, sometimes distinctly constricted just distal to middle, widest mostly near proximal third, sometimes near base or near middle, (1–)3–8(–10) cm long, the length (0.9–)1.5–2.3 × width; marginal teeth 13–20(–25) per side, acute to obtuse, spreading or appressed, often with tips recurved, with sinuses 0.6–1.2(–2) mm deep; adaxial surface antrorse strigillose to strigose-pilose, the hairs 0.1–0.5 (sometimes to 0.6) mm. **Peduncles** 0.3–0.9 × leaf length. **Bract series** gradually reduced in size; proximal bracts lanceolate, elliptic-lanceolate, triangular-lanceolate, oblanceolate, or oblong, (3.5–)5–8 mm long, 1–1.5(–2) mm wide, widest near the base or proximal third, sometimes the outermost series slightly broader above middle (if 4 mm or less long, then widest near the base); apex acute or attenuate. **Corolla** yellow or yellow-orange aging reddish orange; corolla tube 7–12 mm; corolla limb 6–9 mm in diam.

**Distribution and habitat.**—Hispaniola and eastern Cuba; disturbance openings in tropical evergreen and deciduous forest, open pine forest, thorn shrubland, savanna; 0–1800 m.

**Lantana camara** subsp. **moldenkei** is enigmatic. The hispid twigs and sometimes longer hairs on the adaxial leaf surface suggest this subspecies may be a taxon that originated from hybrids between **L. camara** subsp. **camara** and **L. horrida**. Geographically the **L. horrida** parent should be subsp. **zanonii**, but **L. camara** subsp. **moldenkei** lacks stipitate glands. Sanders (1987b) demonstrated that subsp. **moldenkei** is widespread in Hispaniola and is uniformly tetraploid with normal segregation at meiosis, which is consistent with parentage from two closely related, probably diploid species. This might also explain the possible sympatry with **L. camara** subsp. **camara**. See further discussion and illustration in Sanders (1989).


**Lantana armata** Schauer f. ternifolia Moldenke, Phytologia 47:223. 1980. **Type:** VENEZUELA. **Amazonas:** confluence of Río Orinoco with Río Ventuari, 4 May 1971, Foldats 227-A (holotype: NY).
**Stems** usually without prickles or with few weak, straight ones; twigs, peduncles and often petioles moderately to densely covered with usually ascending, soft to somewhat stiff, curled or straight hairs, the hairs 0.1–0.5 (–0.7) mm, mostly ca. 0.3 mm. **Leaf-blades** broadly ovate to oblong-deltate to elliptic lanceolate, widest usually in or near proximal third, sometimes near middle, (1.5–)3–7 (–9) cm long, the length (1.1–)1.3–2 × width; marginal teeth 20–35 (–50) per side, rounded, obtuse, or acute, often appressed, with sinuses 0.3–0.8 (–1) mm deep; adaxial surface antorsely strigillose to strigose-pilose, the hairs mostly about 0.3 mm or less. **Peduncles** 0.5–1.2 × leaf length. **Bract series** gradually reduced in size; proximal bracts linear-oblong, oblanceolate-oblong, linear-lanceolate, or linear-triangular, 4–8 mm long, 0.5–1.5 mm wide, widest near the base or the outermost series sometimes widest above middle (if 4 mm or less long, then widest near the base); apex acute to attenuate. **Corolla** yellow to or aging reddish orange; corolla tube 7–12 mm; corolla limb 6–9 mm in diam.

**Distribution and habitat.**—Southern Central America (Costa Rica, Panama), northern South America (Ecuador, Colombia, Venezuela, and the Guianas), and Lesser Antilles; disturbance openings in tropical evergreen and deciduous forest, shrubland, and savannas; 0–1800 m.

Selected specimens examined: **COLOMBIA.** Antioquia: Barkley et al. 590 (NY). **Norte de Santander:** López-Palacios 3594 (NY). **Valle del Cauca:** Cuatrecasas 14456 (F). **ECUADOR.** Tungurahua: Auspach 19924 (NY). **GUYANA.** Pomeroon-Supenaam: De La Cruz 1054 (NY). **PANAMA.** Panama: Dwyer et al. 5095 (MO); Garibaldi 111 (MO); Jaen 36 (F); Macbride 2601 (F). **VENEZUELA.** Bolivar: Croizat 32 (F). **Lara:** Gonzalez & Campos 197 (LL). **Merida:** López-Palacios 2584 (LL). **Miranda:** Ramírez 1090 (NY). **Trujillo:** López-Palacios 2769 (LL).


**Stems** usually without prickles or with few weak, straight to recurved ones; twigs, peduncles and often petioles densely covered with stipitate glands or also with eglandular filiform hairs mixed in, the hairs (and glands) 0.1–0.5 mm, mostly 0.2–0.3 mm. **Leaf-blades** broadly ovate or broadly elliptic to oblong-lanceolate or elliptic-lanceolate, widest usually near proximal third or middle, (1–)4–10–16 cm long, the length (1.2–)1.5–2.1 × width; marginal teeth 10–30 (–45) per side, usually rounded or obtuse, usually spreading, with sinuses (0.4–)0.7–1.5 (–2) mm deep; adaxial surface mixed antorsely strigillose to strigose-pilose and stipitate-glandular, the hairs 0.1–0.5 mm. **Peduncles** 0.5–1.8 × leaf length (often almost doubling in length in fruit). **Bract series** gradually reduced in size; proximal bracts oblanceolate-oblong (rarely obovate) to triangular-oblong or...
linear-lanceolate, (2.5–)4–8 mm long, 0.8–1.7(–2) mm wide, widest above or near the middle or near the base; apex acute to attenuate, often rounded at very tip. Corolla yellow to or aging reddish orange, rarely white; corolla tube (5–)7–12 mm; corolla limb 6–9 mm in diam.

Distribution and habitat.—Mexico (northwestern, central, and southern) and Central America to northern Colombia and Venezuela; open pine-oak forest, thorn and tropical deciduous shrubland and woodland, and savanna, especially in disturbance openings; 0–2000 m.

Lantana camara subsp. glandulosissima differs from subsp. camara only in the strong development of stipitate glands in place of filiform hairs on twigs, peduncles, petioles, and leaf surfaces and in the longer bracts and corollas. Because the development of glandular hairs is variable within several other taxa in sect. L. camara, this trait is viewed as insufficient grounds for recognition at the species level. The two subspecies appear to be parapatric or narrowly sympatric in the vicinity of Veracruz (as evidenced by the intermediate or hybrid specimen, Gilly et al. 75, MSC), perhaps due to human activity. Although no specimens of subsp. glandulosissima from Veracruz came to my attention, interspecific hybrids (see section below) further evidence its presence there. Furthermore, at least in Bocas del Toro Prov., Panama, subsp. glandulosissima intergrades with subsp. moritziana (Peterson & Annable 868, MO).

Lantana camara subsp. glandulosissima is broadly sympatric with L. horrida. The two “pass the test of sympathy” (Stebbins 1966, p. 95–96) despite occasional hybrids that are probably limited to disturbed areas. I take this as evidence that L. camara and L. horrida are distinct. On the other hand, if one considered the differences in length of the adaxial leaf-surface trichomes an inadequate species criterion and submerged L. horrida within L. camara, then subsp. glandulosissima would need to be segregated as a distinct species.


*Lantana mutabilis* Salish., Prodr. Spur. Chap. Allerton. 107. 1796. **nom. illeg.** **Type:** None selected.

*Lantana suaveolens* Desf., Tabl. École Bot., ed. 3 (Cat. Pl. Horti Paris) 393. 1829. **nom. illeg.** **Type:** Not determined.

*Lantana cocinea* C.E. Weigel, Physiogr. Salsk. Handl. 1:46. 1776. **Type:** Unknown.


Stems usually with stout, recurved prickles, often abundant; twigs, peduncles and often petioles moderately covered with antrorse to ascending or retorse, curved or straight hairs or also stipitate glands, the hairs 0.1–0.7 mm. **Leaf-blades** broadly ovate or oblong-deltate to elliptic lanceolate, widest usually in or near proximal third, sometimes near middle, 3–9 cm long, the length (1.1–)1.3–2 × width; marginal teeth 10–30(–45) per mm. **Peduncles** 0.5–1.2 × leaf length. **Bract series** narrowly ovate to deltate and elliptic lanceolate, widest usually in or near proximal third, sometimes near middle, 3–9 cm long, the length (1.1–)1.3–2 × width; marginal teeth 10–30(–45) per side, usually acute or obtuse, sometimes rounded, usually spreading, with sinuses 0.5–2 mm deep; adaxial surface antrorse to retuse to strigose-pilose, the hairs 0.1–0.5 mm (occasional ones to 0.7 mm). **Peduncles** 0.5–1.2 × leaf length. **Bract series** gradually reduced in size; proximal bracts linear-oblong, oblanceolate-oblong, linear-lanceolate, or linear-triangular, 4–8(–10) mm long, 0.5–1.5 mm wide, widest near the base or proximal third, sometimes the outermost one or two slightly broader above middle; apex usually attenuate. **Corolla** yellow to or aging red-orange and usually infused with purple or opening pink aging to deep reddish purple; corolla tube (5–)7–12 mm; corolla limb 6–10 mm in diam.

**Distribution and habitat.**—Historically cultivated worldwide and escaped pantropically, especially common in Africa and Australia; disturbance openings in tropical evergreen, deciduous, and thorn forest and savanna; 0–2000 m.

Selected specimens examined: **AUSTRALIA. Queensland:** Day 8 (BRIT). **KENYA. Taita Taveta:** Wakanene et al. 383 (MO). **ZAIRE. Haut-Katanga:** Fabri 60415 (MO).

Presumed hybrids with: **91-cv*20. L. Callowiana Hybrid Group cultivars (L. depressa—tetraploid x strigocamara). **AUSTRALIA. Queensland:** Day 64 (BRIT); Riding 76 (BRIT); Robazza & McAndrew 17 (BRIT). **12b. L. nivea subsp. mutabilis. **AUSTRALIA. New South Wales: Day 38 (BRIT); Day 42 (BRIT); Day 71 (BRIT). **Queensland:** Hannan-Jones 29 (BRIT); McAndrew 48 (BRIT); McAndrew 81 (BRIT); McAndrew 89 (BRIT). **CHINA. Guandong:** Deng Lang 10459 [BRIT]. **RHODESIA. Gurove:** Nyariri 167 (MO). **TANZANIA. Kilimanjaro:** Mwangoka & Kayombo 113 (MO). **U.S.A. Hawai’i. Oahu:** Degener 11467, identification uncertain (SMU). **NORTH CAROLINA. Forsyth Co.** Kuntz: c.v. Schallert 1352 (SMU). **20. L. strigocamara. **AUSTRALIA. **Queensland:** Day 69 (BRIT). **TANZANIA. Arusha:** Kayombo 1495, identification uncertain (BRIT). **Pwani:** Kibure 26 (BRIT). **U.S.A. Hawai’i. Kauai:** Krauss 1013 (SMU). See also taxon 1e and section on hybrid synonymy: 1f×2, 1f×4, and 1f×C.

2. Lantana horrida Kunth, Nov. Gen. Sp. [H.B.K.] 2:261. 1817. **Type:** MEXICO. **DISTrito FEDERAL:** Chapultepec, Humboldt & Bonpland 4149. **Lectotype:** P-HBK, barcode P00307142[di!]).

*Lantana antilliana* Raf., Sylva Tellar. 82. 1838. **Type:** Unknown.

**Shrubs** erect, rounded, lax, or trailing, dense to open; stems 0.5–3 m; branches ascending and normally several to decumbent and few; twigs, peduncles and often petioles puberulent, setose, glabrescent, or stipitate-glandular, the hairs 0.1–1.5 mm. **Leaf-blades** broadly ovate to rotund, elliptic or lanceolate-deltate, (0.5–)1–9–
12) cm long, the length 1–2.2 x width, not nigrescent, papery, pinninerved; base usually rounded to truncate, sometimes broadly cuneate or cordate, briefly narrowly cuneate onto petiole at very base; apex acuminate, acute, obtuse, or rounded; marginal teeth (4–)6–25–(45) per side, acute, obtuse, or rounded, spreading or appressed, then sometimes with tips recurved, with sinuses 0.2–2.5 mm deep; adaxial surface dull, antrorsely stigrose-velutinous or also stipitate-glandular, the hairs occurring on veins and intervening tissue, moderately dense canopy of hairs 0.6–0.8 (~1) mm with understory of hairs 0.2–0.5 mm, (5–)10–50–(150)/sq. mm, not noticeably vitreous-pustulate, the circular bases of the strigae ca. 0.1–0.2 mm in diam.; abaxial surface dull green, moderately densely (occasionally sparsely) pilose, the hairs on all veins and intervening tissue, 0.3–0.5 mm, all about same length except for a few scattered arching hairs 0.7–1 mm on the midrib or secondary veins, 10–200/sq. mm. Inflorescences remaining hemispheric; peduncles (0.5–)0.8–4 x leaf length (usually about equalling to almost twice when mature). Proximal bracts lanceolate-triangular, lanceolate-linear or narrowly elliptic, narrowly oblanceolate, narrowly oblong to oblanceolate-spatalate, 2–12 mm long, 0.5–3 mm wide, widest in proximal, middle, or distal third, with 3(–5) veins from the base, appressed or spreading, persisting or not; apex acute, attenuate or obtuse to rounded; indument stigrose-pilose or setose, often sessile- or stipitate-glandular, ciliate or not, the longest hairs mostly 0.3–1 mm. Corolla yellow to or aging reddish orange; corolla tube 4–12 mm.

Distribution and habitat.—Mexico and West Indies to subtropical South America; tropical savanna with gallery forest, montane humid, pine, or dry forest, and disturbed successional woodland, shrubland and grassland; 0–2500 m.

See also comments under Lantana camara subsp. glandulosissima.

KEY TO THE SUBSPECIES AND VARIETIES OF LANTANA HORDIDA

1. Twigs, peduncles, petioles, and upper leaf surfaces with stipitate glands lacking or with a few mixed among the eglandular hairs.

2. Inflorescence bracts mostly 1.5–3 mm wide, either all series about 2–5 mm or only the proximal series 5–8 mm long and distal series abruptly shortened to 2–5 mm, proximal bracts ovate to elliptic; apex acute __________________________________________________________________________ c. subsp. tiliifolia

1. Twigs, peduncles, petioles, and/or upper leaf surfaces with stipitate glands densely mixed or among the eglandular hairs.

3. Inflorescence bracts mostly 1.5–3 mm wide; leaf-blades generally 4–9 cm long, varying from nearly rotund or broadly ovate with an abruptly acuminate apex to broadly rounded at base and sides tapering from wide base straight to prolonged acute apex; marginal teeth mostly 20–35 per side __________________________________________________________________________ b. ii. subsp. sargentii

4. Inflorescence bracts usually 0.5–1.5 mm wide, proximal series 5–10 mm long and gradually shorted to distalmost series that are 2–4 mm long, proximal bracts lanceolate, lanceolate-linear, narrowly elliptic, rarely narrowly obovate; apex attenuate __________________________________________________________________________ a. subsp. horrida

2. Inflorescence bracts mostly 1.5–3 mm wide, either all series about 2–5 mm or only the proximal series 5–8 mm long and distal series abruptly shortened to 2–5 mm, proximal bracts ovate to elliptic; apex acute __________________________________________ c. subsp. tiliifolia

3. Inflorescence bracts usually 0.5–1.5 mm wide; leaf-blades generally 0.5–4 cm long, ovate, obleng-triangular, ovate-elliptic or smallest ones rotund, apex rounded or abruptly acute; marginal teeth 6–20 per side __________________________________________________________________________ 4 (b. subsp. sanonii)

4. Central axis of plant abortive or weak, plant more or less prostrate with trailing branches; leaf-blades usually about 0.5–2 cm long; marginal teeth sinuses 0.2–0.8 mm deep; proximal bracts mostly shorter than 5 cm, lanceolate, narrowly oblengoblong, narrowly elliptic, or spatulate ________________________________ b. ii. subsp. sargentii var. subcordata

2a. Lantana horrida subsp. horrida


**Shrubs** erect, rounded, or lax, dense to open, the central axis ± developed, branches ascending or clambering and several; twigs, peduncles and often petioles moderately setose, rarely with stipitate glands mixed among the eglandular hairs. **Leaf-blades** ovate to broadly ovate or broadly elliptic, (1–)3–9 cm long, moderately to weakly rugose, puckered between tertiary veins; apex acute to acuminate, occasionally obtuse or rounded; marginal teeth (4–)10–25–35 per side, with sinuses 0.5–2 mm deep; adaxial surface antrorsely strigillose to strigose-velutinous, viscidly stipitate-glandular or not, the hairs 10–50/sq. mm. **Peduncles** (0.5–)0.8–2 × leaf length (usually about equalling to almost twice when mature). **Bract series** gradually reduced in size and width; proximal bracts lanceolate, lanceolate-linear, narrowly elliptic or rarely narrowly obovate-linear, 5–12 mm long, 0.5–1.5 (rare outermost one subfoliar to 2.5) mm wide, widest in proximal third (often near base), sometimes near middle or distal third; apex attenuate; indument setose or pilose, ciliate or not; distal bracts 3–5–8 mm long. **Corolla** yellow aging yellowish or reddish orange; corolla tube 7–12 mm; corolla limb 6–10 mm in diam.

**Distribution and habitat.**—Mexico (northwest, central, southern), Central America (Guatemala to central Panama), Cuba; cultivated and escaped in Old World tropics; littoral and thorn shrubland, open pine-oak and deciduous montane forest and woodland; disturbance openings in tropical evergreen, sclerophyll, and deciduous forest and woodland; tropical savanna; 0–2500 m.

Selected specimens examined: **CUBA. Santiago de Cuba:** Havard 143 (NY). **Villa Clara:** Britton & Wilson 4960 (NY). **MEXICO. Chiapas:** Laughlin 1535 (LL). **Chihuahua:** LeSueur 1197 (SMU). **Guatemala:** Rose & Hough 4833 (US). **Nayarit:** Kral 27356 (VDB); Maltby 81 (US). **Puebla:** Torres 5267 (TEX). **Veracruz:** Nelson 384 (US). **NICARAGUA. Carazo:** Hamblett 531 (SMU). **PANAMA. Herrera:** Stern et al. 1708 (MO). **Veraguas:** Batista et al. 52 (MO); Dwyer et al. 7554 (MO).--Presumed hybrids with: **A. L. hirsuta subsp. hirsuta. COSTA RICA. Cartago:** Cooper 5892 (US). **San José:** Sidney 42, also × *L. nivea* subsp. mutabilis (F); Tonduz 3377 (US); Tonduz 7035 (LL[di]). **GUATEMALA. Alta Vera Paz:** Tuchheim 39 (US). **MEXICO. Chiapas:** Ton 7048 (TEX[di]). **Jalisco:** Gregory & Eiten 209 (SMU). **Nayarit:** Waterfall 16328, also × *L. kingii* (SMU[di]). **Veracruz:** Nee et al. 25132 (BRIT[di]). **Yucatán:** Lundell 6070 (US). **Zacatecas:** Taylor & Taylor 6070 (BRIT[di]). **PANAMA. Chiriquí:** Croat 10685, also × *L. camara* subsp. glandulosissima (MO). **5. L. insularis. CUBA. Santiago de Cuba:** Britton et al. 12624 (NY); Ekman 7972 (NY); Havard 125 (NY). **6. L. scabruda. COSTA RICA. Guanacaste:** Tonduz 13630 (LL[di]). **Limón:** Jiménez 1903 (NY). **CUBA. Havana:** León 1744 (NY). **Matanzas:** Britton et al. 234 (NY). **Santiago de Cuba:** Britton et al. 12898 (NY). **HONDURAS. Comayagua:** Wilson 478 (NY). **PANAMA. Bocas del Toro:** Peterson & Annable 7269 (MO). **Colón:** González 23 (MO). **Colon:** Blum & Dwyer 2119 (MO); Miller & Miller 908 (MO). **Panama:** Ebing 29 (MO); Oliver & Machado 1898 (MO); Varela 3 (MO). **9i-cv ×20. L. callowiana Hybrid Group cultivars (L. depressa–tetraploid × strigosacameram).** **AUSTRALIA. New South Wales:** Riding 77 (BRIT). **Queensland:** Hannan-Jones 73 (BRIT). **10. L. kingii. MEXICO. Hidalgo:** Carney 31 (BRIT[di]); Oaxaca; King 1178 (NY). **Sinaloa:** Gentry 7133 (NY). **Sonora:** Frye & Frye 2308 (NY). **12b. L. nivea subsp. mutabilis (L. horrida subsp. uncertain, could also be L. horrida subsp. tilifolia).** **AUSTRALIA. New South Wales:** Day 70 (BRIT); Day 72 (BRIT). **RWANDA. Butare:** D’Arcy 8700 (MO). **20. L. scabrida. COSTA RICA. Cartago:** Britton et al. 12624 (NY); Ekman 7972 (NY); Havard 125 (NY). **5a-cv ×20. L. callowiana Hybrid Group cultivars (L. depressa–tetraploid × strigosacameram).** **AUSTRALIA. New South Wales:** Riding 77 (BRIT). **Queensland:** Hannan-Jones 73 (BRIT). **10. L. kingii. MEXICO. Hidalgo:** Carney 31 (BRIT[di]); Oaxaca; King 1178 (NY). **Sinaloa:** Gentry 7133 (NY). **Sonora:** Frye & Frye 2308 (NY). **12b. L. nivea subsp. mutabilis (L. horrida subsp. uncertain, could also be L. horrida subsp. tilifolia).** **AUSTRALIA. New South Wales:** Day 70 (BRIT); Day 72 (BRIT).


**Shrubs** erect, rounded, lax, or trailing, dense to open, the central axis well-developed to abortive, branches ascending to arching and several or decumbent and few; twigs, peduncles and/or petioles densely setose and stipitate-glandular. **Leaf-blades** ovate, ovate-elliptic, trullate, ovate-deltate, or broadly ovate, or smallest ones subrotund, (0.5–)1–4(–6) cm long, moderately to prominently rugose, puckered between tertiary and/or secondary veins, apex acute to rounded; marginal teeth 6–20 per side, with sinuses 0.2–2.5 mm deep; adaxial surface antrorsely strigllose to strigo-velutinous, viscidly stipitate-glandular or not, the hairs 10–150/sq. mm. **Peduncles** 1–4 × leaf length (usually about 2 when mature). **Bract series** gradually reduced in size and width or all similar; proximal bracts lanceolate, lanceolate-linear, narrowly oblanceoloblong or oblong-obovate to spatulate, 2.5–10 mm long, 0.5–1.5 mm wide, widest in proximal, middle, or distal third; apex rounded, obtuse or acute; indument strigose-pilosetose or setose, often sessile- or stipitate-glandular, ciliate or not; distal bracts 2–4 mm long. **Corolla** yellow aging yellowish or reddish orange; corolla tube 4–10 mm; corolla limb 4–8 mm in diam.
Distribution and habitat.—Eastern Cuba, Jamaica, Hispaniola, Puerto Rico, Virgin Islands and northern Lesser Antilles; brushland and open tropical deciduous to semi-evergreen woodland or open pine woodland on rocky (often calcareous) slopes; 0–600 m.

When I originally described L. urticifolia subsp. zanionii, it initially appeared to differ from L. arida var. sargentii in leaf and bract shape and some vestiture traits (Sanders 1989). However, careful examination for the present study failed to produce consistent distinctions or geographic correlations. If L. subcordata had not proved to be partially continuous with L. horrida var. sargentii, there would have been no need to recognize varieties within the subspecies. However, there is overlap in bract shapes, and one gathering (Dominican Republic. Santiago: Liogier 13272, L.L., NY), otherwise identical to L. subcordata, is an erect shrub as in var. sargentii. Recognition of only two varieties within Lantana horrida subsp. zanionii has resulted in the lack of a nominate variety because autonyms exist only for infraspecific taxa that include the type of the species (ICBN Art. 26, Note 1, McNeill et al. 2007). Because, “sargentii” has priority at the varietal level, I am not free to publish the name L. horrida var. zanionii for the variety that includes the type of L. horrida subsp. zanionii (ICBN Recommendation 26A, Example1).


Shrubs erect or rounded and open to dense, the central axis well-developed, branches ascending to arching and several; twigs, peduncles and/or petioles densely setose and stipitate-glandular. Leaf-blades ovate, ovate-elliptic, trullate, ovate-deltate, or broadly ovate, or smallest ones subrotund, 0.5–2 cm long, strongly rugose, puckered between veins; apex acute to rounded; marginal teeth 6–20 per side, with sinuses (0.5–)1–2.5 mm deep; adaxial surface with hairs 10–50/sq. mm. Peduncles 1–3 × leaf length (usually about 2 when mature). Bract series gradually reduced in size and width; proximal bracts lanceolate, lanceolate-linear, elliptic-lanceolate, narrowly oblong, oblong-oblanceolate, or spatulate, 5–10 mm long, widest in proximal, middle, or distal third; apex rounded, obtuse or acute; distal bracts 2–4 mm long. Corolla yellow aging orange or orange-red; corolla tube 5–10 mm.

Distribution and habitat.—Eastern Cuba, Jamaica, Hispaniola, Puerto Rico, Virgin Islands and northern Lesser Antilles; brushland and open tropical deciduous to semi-evergreen woodland or open pine woodland on rocky (often calcareous) slopes; 0–600 m.


Shrubs trailing or sprawling, the central axis abortive or weakly developed, branches decumbent, few; twigs, peduncles and often petioles moderately puberulent, setose, or glabrescent, at least peduncles usually stipitate-glandular. Leaf-blades ovate, deltate, or ovate-oblong, 0.5–2 cm long, strongly rugose, pucker between veins and veinlets; apex abruptly rounded or acute; marginal teeth 8–15 per side, with sinuses 0.2–0.8 mm deep; adaxial surface with hairs 50–150/sq. mm. Peduncles 2–4 × leaf length. Bract series similar in size or distal
series only partially, gradually reduced; proximal bracts oblong or oblong-ovovate to -oblanceolate, 2.5–7 mm long, widest just above middle to distal third; apex rounded or obtuse, often reflexed; distal bracts 2–3 mm long. **Corolla** yellow aging to dark yellow or orange-yellow; corolla tube 4–8 mm.

**Distribution and habitat.**—San José de las Matas region of Cordillera Central, Dominican Republic, Hispaniola; open pine and deciduous montane forest; 100–600 m.

See further discussion and illustration in Sanders (1989).

Selected specimens examined: **DOMINICAN REPUBLIC.** Inoa: Lotinger 11179 (NY); Lotinger 15076 (LL, NY); Lotinger & Lotinger 22525 (LL).

**Santiago:** Burch & Jiménez 3816 (LL, NY); Elman 16172 (LL[2], NY); Jiménez 8144 (NY); Liogier et al. 6443 (NY).

Presumed hybrids with: See taxon 1c.

### 2c. Lantana horrida subsp. tiliifolia


**Lantana glutinosa** Poegg. var. orientalis Moldenke, Phytologia 2:411. 1948. TYPE: VENEZUELA. MERIDA: Campo Ella, 14 Aug 1938, Hanbury-Tracy 31 (HOLOTYPE: K[di!]; ISOTYPE: NY [fragment!]).

**Shrubs** erect and rounded and open, occasionally lax and subscandent, the central axis well-developed, prominent, branches ascending and several, occasionally clambering and few; twigs, peduncles and often petioles moderately to densely setose, or mixed setose and stipitate-glandular, or predominantly stipitate-glandular.

**Leaf-blades** ovate to broadly ovate or broadly elliptic, (1–)3–9(–12) cm long, moderately to weakly rugose, puckered between tertiary veins, apex usually abruptly, briefly acuminate (triangular tip ca. 5 mm) to acute, occasionally obtuse or rounded; marginal teeth 15–35(–45) per side, with sinuses 0.3–1.2(–1.5) mm deep; adaxial surface antorsely strigillose to strigose-velutinous and often viscidly stipitate-glandular, the hairs (5–)10–30(–50)/sq. mm. **Peduncles** (0.5–)0.8–2 × leaf length (usually about equalling to almost twice as long when mature). **Bract series** all small or proximal 2 or 3 series longer with distal series abruptly shortened; proximal bracts elliptic, narrowly ovate, oblong, or oblong-ovovate, 2–5(–10) mm long, (0.8–)1.2–3 (rare outermost one subovarioid to 4) mm wide, widest just below middle or near proximal third, occasionally above middle; apex acute to obtuse, sometimes briefly, abruptly acuminate or, if bract is over 5 mm long, attenuate; indument thinly pilose, stipitate-glandular or not, ± ciliate; distal bracts 2–4 mm long. **Corolla** yellow to or aging reddish orange or dark red; corolla tube 7–12 mm; corolla limb 6–10 mm in diam.

**Distribution and habitat.**—The Guianas, Venezuela, Colombia, Ecuador, Peru, Chile, Bolivia, Paraguay, northern Argentina, and southeastern to eastern Brazil; cultivated and escaped in Old World tropics; tropical savanna with gallery forest, montane humid forest, and disturbed sucessional woodland, shrubland and grassland; 150–2400 m.

Andean plants are predominantly stipitate-glandular. Otherwise, I have been unable to discern any geographic or ecological patterns separating the eglandular, mixed eglandular-glandular, and predominantly stipitate-glandular plants, especially in the Brazilian Planalto. Extensive field work is needed.


Shrubs low and rounded, dense; stems 0.3–0.8(–1.5) m; branches stiffly divergent; twigs, peduncles and often petioles moderately puberulent to setose, viscid with conspicuous stalked glands, the hairs 0.1–1.5 mm. Leaf-blades ovate-elliptic to narrowly triangular or narrowly elliptic, 0.5–2.5 cm long, the length 1.8–3× width, not nigrescent, papery to subcoriaceous, usually bullate (i.e., puchered between the secondary veins, unique in this species), pinninerved; base rounded to cuneate; apex abruptly rounded or acute; marginal teeth 3–6 per side, rounded to acute, spreading to ascending, with sinuses 0.5–1 mm deep; adaxial surface dull, antrorsely remaining hemispheric; peduncles 2–4× leaf length. Proximal bracts obovate to elliptic, 4–7 mm long, 1–2 mm wide, widest just above middle to distal third, with 3 veins from the base, spreading or recurved, persisting; apex rounded to obtuse or acute; indument evenly pilose and stipitate-glandular, ciliate or not, the longest hairs 0.3–0.8 mm. Corolla yellow aging to orange; corolla tube 4–8 mm.

Distribution and habitat.—North coast of Hispaniola; low shrubland on semi-arid littoral cliffs and slopes of coral limestone and associated savannas somewhat inland; 0–150 m.

See discussion and illustration in Sanders (1989).

Selected specimens examined: DOMINICAN REPUBLIC. Monte Cristi: Jiménez & Liogier 5706 (NY); Jiménez 8724 (NY); Liogier 15600 (NY). HAITI. NORD-OST: Leonard & Leonard 11930 (NY).

Presumed hybrids with: See taxon 1c.

B. Lantana sect. Lantana series Setosae R.W. Sanders, ser. nov. TYPE: Lantana hirsuta M. Martens & Galeotti

Adaxial leaf surfaces setose-villous, the hairs 1–2.5 mm; abaxial leaf surfaces setose, usually sparsely so, the
hairs occurring on veins but usually not on non-innervated tissue, setiform, 0.7–2.0 mm. **Inflorescences** arrested and remaining hemispheric, prolate-globose in fruit.


**Shrubs** erect, rounded, or subscandent; stems 0.7–3 m; branches ascending and several to clambering and few; twigs, peduncles and often petioles moderately to densely setose, the hairs (0.8–)1–2.5 mm, mostly all the same length. **Leaf-blades** broadly ovate, ovate, or ovate-elliptic, rarely lanceolate, (2–)4–12 cm long, the length 1–2 × width, not nigraceous, membranous to papery, pinninerved; base usually rounded to truncate, sometimes broadly cuneate or subcordate, briefly narrowly cuneate onto petiole at very base; apex usually acuminate; marginal teeth 10–35(–40) per side, acute to rounded, spreading to appressed, then sometimes with tips recurved, with sinuses 0.3–3 mm deep; adaxial surface dull, setose to villous, the hairs occurring on veins and intervening tissue, longer ones 1.5–5 mm or more, 1–40/sq. mm, not noticeably vitreous-pustulate, the circular bases of the setae ca. 0.1–0.2 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, setose, with the setae restricted to midrib and veins, (0.5–)5–10.7–1.5 mm or more, usually without shorter hairs, 0.5–80/sq. mm. **Inflorescences** occasionally 2 per leaf axil, remaining hemispheric; peduncles 0.3–1(–2) × leaf length. **Proximal bracts** linear-lanceolate, -oblong, or -triangular, outermost series often linear spatulate, 5–10(–12) mm long, 0.7–2 (rare outermost one subfoliar to 4) mm wide, widest in proximal third or near base, othermost series often dilated in distal third and widest there or equalling broadest proximal portion, with 3 veins from the base, appressed or spreading, persisting or not; apex attenuate or acute or rarely rounded at very tip; indument setose or pilose, ciliate or not, the longest hairs 0.3–1.5 mm. **Corolla** yellow to or aging reddish orange; corolla tube 8–12 mm.

**Distribution and habitat.**—Mexico to Brazil and northern Argentina; cultivated and escaped in Old World tropics; openings in tropical semi-evergreen forest and montane evergreen forest on poor soils, open pine-oak woodland, tropical savanna with gallery forest, areas of dense woodland, shrubland, and grassland; 0–2000(–3000) m.

**Key to the subspecies of Lantana hirsuta**

1. Leaf margin coarsely serrate-dentate with usually 10–25 teeth per side, the sinuses 1–3 mm deep; leaf trichomes usually sparse, adaxial and abaxial ones usually 0.5–7/sq. mm; peduncles usually 6–14 cm; leaf-blade apex generally acuminate with a triangular tip 3–8 mm long ______________________________

a. **subsp. hirsuta**

1. Leaf margin finely serrate-dentate with usually 25–35 teeth per side, the sinuses 0.3–1.0(–1.5) mm deep; leaf trichomes usually less sparse, adaxial and abaxial ones usually 10–40/sq. mm or more; peduncles usually 2–5 cm; leaf-blade apex generally acuminate with a narrowly triangular point (5–)10–15 mm long ______________________________

b. **subsp. amazonica**


**Leaf-blades** broadly ovate, ovate, or rarely lanceolate or ovate-elliptic; apex acuminate (abruptly contracted to triangular tip 3–8(–15) mm long), acute or rarely obtuse or rounded (triangular tip lacking); marginal teeth 10–25(–40) per side, with sinuses (0.7–)1–3 mm deep; adaxial surface with the setae 1–7(–15)/sq. mm; abaxial surface with the setae erect and usually rigidly straight, 0.5–7(–15)/sq. mm. **Peduncles** (3–)6–14 cm, 0.8–1(–2) × leaf length (usually about equalling when mature). **Proximal bracts** with longest hairs 0.5–1.5 mm.

**Distribution and habitat.**—Mountains and coastal plains of Mexico (frequent in eastern Mexico but collections are known from a few disjunct localities in western Mexico from Guerrero to Baja California), Central America, and extreme northwest Colombia; cultivated and escaped in Old World tropics; open pine-oak woodland, openings in semi-evergreen tropical forest and brushland, thickets, and grasslands; (0–)1000–1600 m. The few collections from western Mexico may represent another infraspecific taxon, as they tend to have smaller leaf-blades and denser trichomes. Further work on this variation is needed.

Lantana section Lantana


Leaf-blades broadly ovate-elliptic to ovate, oblanceolate, or elliptic; apex acuminate (abruptly contracted to triangular tip (5–)10–15 mm long), acute or rarely obtuse or rounded (triangular tip lacking); marginal teeth (20–)25–35 per side, with sinuses 0.3–1.5 mm deep; adaxial surface with the setae (3–)10–40/sq. mm; abaxial surface with the setae erect and usually arching or sinuate, 10–80/sq. mm. Peduncles (20–)25–35 per side, with sinuses 0.3–1.5 mm deep; adaxial surface with the setae (3–)10–40/sq. mm; abaxial surface with the setae erect and usually arching or sinuate, 10–80/sq. mm. Peduncles 2–5 (–8) cm, 0.3–0.5 (–1) × leaf length. Proximal bracts with longest hairs 0.3–1 mm.

Distribution and habitat.—Brazil (eastern Amazon Basin and Planalto), Paraguay, northern Argentina, Bolivia, Peru, Ecuador, and Colombia to western Venezuela; cultivated and escaped in Old World tropics; openings in tropical semi-evergreen forest and montane evergreen forest on poor soils, tropical savanna with gallery forest and areas of dense woodland, shrubland, and grassland; 0–2000 (–3000) m. Schauer (1847, 1851 [t. 42]) recognized Lantana hirsuta subsp. amazonica as a species but misapplied the name L. mišta L. to it (see hybrid synonymy 1b×4).


Shrubs erect, apparently pyramidal and open; stems 1–3 m; branches ascending and several; twigs, peduncles and often petioles sparsely setose but viscid with conspicuous, dense stalked glands, the setae 1.2–2 mm, stipitate glands, 0.3–0.7 mm. Leaf-blades ovate-triangular to ovate-elliptic or lanceolate, 4–10 cm long, the length...
(1.5–)1.7–2.5 × width, not nigrescent (although apparently drying dark due to dark green fresh color), membraneous to papery, pinninerved; base usually rounded to truncate, sometimes broadly cuneate or subcordate, briefly narrowly cuneate onto petiole at very base; apex acuminate to attenuate; marginal teeth (20–)25–40 per side, mostly acute, appressed or ascending, tips sometimes recurved, with sinuses 0.2–0.7(–1) mm deep; adaxial surface dull, setose to villous, the hairs occurring on veins and intervening tissue, longer ones 1–1.5 mm or more, 1–10/sq. mm, not noticeably vitreous-pustulate, the circular bases of the setae ca. 0.1–0.2 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, setose, with the setae restricted to midrib and veins, 1–1.5 (those on finer veins about 0.7 ) mm, 0.5–10/sq. mm. **Inflorescences** remaining hemispheric; peduncles 0.5–1 × leaf length. **Proximal bracts** oblong-lanceolate or -elliptic, 4–6 mm long, 1.5–2 mm wide, widest in proximal third or near middle, rarely above middle, with 3 veins from the base, appressed or spreading, ± persisting and reflexed in fruit; apex acute to obtuse or rounded; indument setose-pilose, ciliate, the longest hairs 1–2 mm. **Corolla** yellow to or aging reddish orange; corolla tube 7–12 mm.

*Fig. 1. Lantana hirsuta subsp. amazonica*, holotype (Heringer et al. 6150, NY). *a.* twig with inflorescences. *b.* inflorescence. *c.* adaxial leaf surface. *d.* abaxial leaf surface. Scale bars: a = 1 cm; b = 5 mm; c & d = 1 mm.
Distribution and habitat.—Jamaica and Cuba; openings or disturbed areas in cloud or montane forest, moist savanna; 1000–3000 m.


Adaxial leaf-surfaces strigose, strigillose, or scabrid, the hairs (or their persistent bases) about 1 mm or less; abaxial leaf-surfaces strigose, usually sparsely so, the hairs occurring only on veins but usually not on non-innervated tissue, striiform, 0.03–1 mm. Inflorescences arrested and remaining hemispheric, prolate-globose in fruit (continuing to initiate flowers somewhat in L. nivea, but flowers, bracts, and abortive fruits deciduous in lower portion leaving it more or less bare with only a hemispheric cluster of flowers/fruits active).


Lantana brittonii Moldenke, Phytologia 2:52. 1941 (as “brittonii”). Type: JAMAICA. Tweeside: Moody’s Gap, 10 Sep 1908, Harris & Britton 10541 (holotype: NY; isotype: US!).

Shrubs rounded and open, lax or subscandent; stems 0.5–6 m; branches ascending to clambering, often few; twigs, peduncles and often petioles thinly to moderately strigose or setose, the hairs 0.2–1 mm. Leaf-blades ovate to elliptic-lanceolate or lance-oblong, (2–)5–15 cm long, the length (1.5–)1.7–2.5(–3) × width, nigrescent, papery to subcoriaceous, triplinerved; base attenuately to abruptly tapering onto petiole from middle or just below middle; apex acuminate, acute, obtuse, occasionally rounded; marginal teeth (12–)17–25(–35) per side, obtuse, rounded, or acute, spreading to appressed, then sometimes with tips recurved, with sinuses 0.5–1.5 mm deep; adaxial surface lustrous, thinly strigose or scabrous, the hairs occurring on veins and center of areoles, 0.1–0.6(–1.2) mm (longest usually 0.2–0.4 mm, except in “scandens” morph where 0.6–1.2 mm), (4–)6–12/sq. mm, sometimes with conspicuous vitreous or whitened pustulate bases 0.1–0.3 mm in diam.; abaxial surface whitish or pale green but not glaucous, antrorsely strigose-scabrous, with the strigae scattered on veins and veinlets, (0.03–)0.1–0.5(–1) mm (longest mostly 0.3–0.5 mm, except in “scandens” morph where 0.5–1 mm), (4–)6–12(–25)/mm sq. (“scandens” morph 0–5)/sq. mm. Inflorescences remaining hemispheric; peduncles 0.5–1 × leaf length. Proximal bracts narrowly lanceolate, lance-elliptic or -oblong (including those with slight constriction in proximal third; occasionally 1 or 2 outermost bracts subfoliar or narrowly spatulate), 4–8 mm long, 1–2 mm wide, widest at very base, in proximal third, or in middle third (then often equally wide at base), with 3 veins from the base, appressed or spreading, usually deciduous after flowering; apex attenuate or acuminate; indument sparsely strigose, somewhat or not ciliate, the longest hairs 0.3–0.5(–1) mm.

Corolla yellow to or aging reddish orange; corolla tube 7–12 mm.

Distribution and habitat.—West Indies (Cuba, Jamaica, possibly Hispaniola, Puerto Rico, possibly the Virgin Islands, and the northern Lesser Antilles), eastern coastal Mexico (Tamaulipas southward) with localized disjunction in southwestern Michoacán (long-haired, scandent morph), Central America, and Caribbean coast and slopes of Colombia, Venezuela, and the Guianas; disturbance openings, savanna and man-made grassland in tropical dry to humid forest; 0–1600 m.

Lantana scabrida is replaced in upland and western Mexico by L. kingii, but the two are apparently sympatric in Tamaulipas. Field work is needed to determine the status of the isolated scandent morph in Michoacán.

Sanders (1987b) reported the chromosome number (2n = 44) of Lantana scabrida in the Luquillo Mountains of Puerto Rico (Sanders 1510) as L. camara due to misapplication of the name and confusion with L. strigocamara.

Presumed hybrids with: 18. L. urticoides. MEXICO. Tamaulipas: Mears 516a (TEX[di]); Mears 516e (SMU[di]). PUERTO RICO. Ponce: Axelrod & Fritsch 12526 (BRIT). See also taxa 1a, 1d, 2a, 2b, 2c, 4a, 4b, 5, and 10 and section on hybrid synonymy: 1a×6, 1d×6, and 12×6/7?


SOUTH ANDROS: Smith’s Hill, 24 Sep 1974, Correll 43497 (LL[di]!; ISOTYPES: FTG!, NY!). As the author who first designated an epitype (Herb Sherard 1269, OFX) for L. splendens (Sanders 2006), I hereby revoke that designation. Problems with the Sherard specimen include galled-transformed capitula, structural and arrangement details of the abaxial leaf-blade strigae, and unexceptional luster intensity on the adaxial leaf surface. In my notes taken at OFX, I recorded the presence of some filiform hairs along the midrib (as in L. bahamensis), despite these not being visible in the images later sent to me by OFX (Sanders fig.6, 2006). Furthermore, Correll 43497 is a closer match to the lectotype in leaf shape and branching than is the Sherard specimen. Since the lectotype very likely was illustrated from cultivated live plants, these may have been mixed as to genetic purity, the Sherard specimen being an impure sample. Because L. splendens would take priority should later workers combine it with other similar species, its extra-protologue reference specimen must be an unambiguous element of the indigenous taxon, as well as be the best match to the protologue, to avoid nomenclatural instability.

Shrubs erect, open or virgate; stems 0.5–2.5 m; branches ± divaricate, few to numerous, the internodes often wiry and 2–3 times as long as the subtending leaves (unique to this species); twigs, peduncles and often petioles glabrescent to thinly pubescent or scabridulous, the hairs 0.05–0.3 mm. Leaf-blades ovate, ovate-triangular, elliptic or lanceolate triangular, 1–5(–7) cm long, the length (1.5–)1.7–2.5 (–3) × width, nigrigent or not, coriaceous to subcoriaceous, triplinerved; base attenuately tapering onto petiole from middle or just below middle; apex attenuate, acute or obtuse; marginal teeth 9–21 per side, rounded to acute, often appressed, with sinuses 0.3–1 mm deep; adaxial surface lustrous to intensely so, thinly scabrous, the hairs occurring on veins and center of areoles, 0.1–0.2 mm, 1–7/sq. mm, noticeably vitreous-pustulate, the circular bases 0.3–0.5 mm or more in diam. on mature leaves, often filling whole areole; abaxial surface whitish or pale green but not glaucous, antrorsely strigose-scabrous to nearly glabrous, with the strigae scattered on veins and veinlets, 0.05–0.3 mm, 1–15/sq. mm (sometimes immature leaves with deciduous, mealy pubescence on veins). Inflorescences remaining hemispheric; peduncles 0.6–1.5 × leaf length. Proximal bracts oblong-lanceolate, elliptic, or 1 or 2 outermost ones oblong-ovate or-oblancoate, 2–4(–5) mm long, 0.7–1.7 mm wide, widest usually near middle or distal third, sometimes proximal third, with 3(–5) veins from the base, appressed or spreading, usually deciduous after flowering; apex acute; indument strigillose, hardly ciliate, the longest hairs ≤ 0.3(–0.5) mm. Corolla yellow to orange probably aging with more reddish tints; corolla tube 5–8 mm.

Distribution and habitat.—Central Bahama Archipelago, Cuba (central northern coastal islands); disturbed sclerophyllous woodland, thickets, and savanna on pitted limestone; 0–50 m.


Presumed hybrids with: See also taxa 1a and 2bi and section on hybrid synonymy: 12×6/7?


Shrubs lax or subscandent; stems 1–3 m; branches ascending or clambering, few; twigs, peduncles and often petioles thinly strigose, the hairs 0.2–1 mm. Leaf-blades ovate to elliptic-lanceolate, 5–15 cm long, the length 1.7–2.5(–3) × width, nigrigent, subsucculent or coriaceous, triplinerved; base attenuately to abruptly tapering onto petiole from below middle; apex abruptly acuminate; marginal teeth 20–40 per side, obtuse or acute, spreading to appressed, then sometimes with tips recurved, with sinuses 0.5–2 mm deep; adaxial surface in-
tensely lustrous, strigose-glabrescent but smooth, the hairs occurring on veins (scattered) and center of areoles, 0.2‒0.4(‒0.8) mm, 0‒2/sq. mm, flaccid and strongly appressed to surface (unique in this species), often deciduous, not pustulate based; abaxial surface whitish or gray-green (but not glaucous), weakly strigose and nearly glabrous, with the strigae scattered on veins and veinlets, 0.1‒0.6 mm, 0‒4/sq. mm. Inflorescences remaining hemispheric; peduncles ¥¾‒½ × leaf length. Proximal bracts ob lanceolate to narrowly oblong to narrowly lanceolate, (4‒)6‒10 mm long, 1‒1.7 mm wide, widest in proximal third to distal third, with 3 veins from the base, appressed or spreading, deciduous after flowering; apex attenuate; indument glabrescent, not ciliate, the longest hairs ≤ 0.5 mm. Corolla yellow to or aging reddish orange; corolla tube 7‒10 mm.

Distribution and habitat.—Central Lesser Antilles (Dominica, Martinique, probably Saint Lucia); sunny slopes in borders and openings of montane rainforest; 400‒1000 m.

See discussion in Sanders (1987c).

Selected specimens examined: LESSER ANTILLES. Dominica: Lee 9 (NY); Lloyd 201 (NY); Smith I0216 (SMU). Martinique: Bailey & Bailey 240 (NY).

Presumed hybrids with: [9i-cv×20]. L. Callowiana Hybrid Group cultivars (L. depressa‒tetraploid × strigocamara). LESSER ANTILLES. Dominica: Hill 23959, alternatively × L. strigocamara (BRIT). See also taxon 1d.


Shrubs trailing to erect, dense to ± open; stems 0.1‒3 m; branches ascending, decumbent or prostrate, usually several to numerous; twigs, peduncles and often petioles thinly setose or strigose-setose, the hairs 0.5‒1.5 mm. Leaf-blades ovate-elliptic to elliptic, 1‒6(‒8) cm long, the length 1.7‒2.3(‒3) × width, induplicately curved at maturity (unique to this species), nigrcentral, papery, triplinerved; base obtuse or acute, tapering onto petiole from middle or just below middle; apex abruptly tapered, obtuse or acute; marginal teeth 3–15 per side, rounded to acute, often appressed, with sinuses 0.5‒1.5 mm deep; adaxial surface lustrous, antrorsely strigillose to strigose, the hairs occurring on veins and center of areoles, 0.1–0.7(–1) mm, 2–8/sq. mm, not noticeably vitreous-pustulate, the circular bases of the strigae ca. 0.1‒0.3 mm in diam.; abaxial surface slightly lighter or duller green, antrorsely strigose-scabrous, with the strigae scattered on veins and veinlets, longest ones 0.5‒1 mm, 0.5‒8/sq. mm. Inflorescences remaining hemispheric; peduncles 0.7‒2 × leaf length. Proximal bracts elliptic-lanceolate, 4‒7 mm long, 0.5‒1.5 mm wide, widest at middle or just below, with 3 veins from the base, appressed or spreading, persisting and reflected from base in fruit; apex acute to attenuate; indument strigose, ciliate or not, the longest hairs 0.1‒1 mm. Corolla yellow aging to a dark yellow or dull, pale orange; corolla tube 5‒11 mm.

Distribution and habitat.—Peninsular Florida; limestone pinelands, wet prairies, and dunes; 0‒50 m.

See more complete discussion in Sanders (1987a) and Maschinski et al. (2010) and illustrations in Sanders (1987a).

KEY TO VARIETIES OF LANTANA DEPRESSA

1. Low-mounded shrubs, rarely exceeding 0.3 m, prominent stems prostrate or decumbent (to 1 m long); leaf-blades 1–3 cm long (to 4 or 5 cm in some cultivars) ___________________________ i. var. depressa

1. Pyramidal to rounded shrubs, 0.5‒3 m, prominent stems erect, ascending or arching; leaf-blades 3‒6 cm long.

2. Rounded shrubs without an erect central axis, all branches more or less spreading-arching; stem hairs 0.5–1 mm; corolla limb 6‒10 mm across ___________________________ ii. var. floridana

2. Pyramidal shrubs with an erect central axis, stiffly ascending distal branches and some decumbent basal branches; stem hairs 1‒1.5 mm; corolla limb 6–8 mm across ___________________________ iii. var. sanibelenisis

9i. Lantana depressa var. depressa


Shrubs low mounded, dense, 0.1–0.3 (spreading to 1) m, the central axis abortive or hardly developed; branches prostrate or decumbent, twigs, peduncles and often petioles with hairs 0.5–1.5 mm. Leaf-blades 1–3 cm long (to 4 or 5 cm in some cultivars). Corolla with tube 5–9 mm; corolla limb 5–8 mm in diam.

Distribution and habitat.—Peninsular Florida (Miami Ridge); cultivated and escaped in tropics and subtropics worldwide; limestone pinelands; 0–25 m.

Because of its drought tolerance, compact habit, and profuse flowering, Lantana depressa var. depressa has been cultivated widely since the 1950s. A tetraploid cultivar and L. strigocamara apparently are the parents of the currently popular Callowiana Hybrid Group cultivars, which have the floral colors of L. strigocamara and are cultivated worldwide and escaped pantropically (see Sanders 2001, specimen citations below, and *9i-cv×20* in the section on hybrid synonymy).

Selected specimens examined: AUSTRALIA. Queensland: cult., McAndrew MJH-647 (BRIT). U.S.A. Florida. Dade Co.: Deam 60894 (NY); Demaree 10208 (SMU); Kral 53943 (VDB); Kral 53964 (VDB); Kral 66236 (NY, VDB); Kral 70742 (VDB); Small et al. 3482 (NY); Traverse 646 (SMU); Texas. Blanco Co.: cult., Sanders 5190 (BRIT); Harris Co.: cult., Traverse 2389 (BRIT).


Shrubs rounded, open, 0.4–1 m, the central axis ± developed, but not prominent; branches arching or ascending; twigs, peduncles and often petioles with hairs 0.5–1 mm. Leaf-blades 3–6(–8) cm long. Corolla with tube 7–11 mm; corolla limb 8–10 mm in diam.

Distribution and habitat.—Peninsular Florida; Atlantic barrier dunes and interior sand ridges, stabilized and relictual dunes; 0–50 m.


Shrubs erect and pyramidal, proximally dense, distally open, 1–3 m, the central axis well-developed, prominent; proximal branches decumbent, distal ones ascending; twigs, peduncles and often petioles with hairs 1–1.5 mm. Leaf-blades 3–6 cm long. Corolla with tube 7–10 mm; corolla limb 6–8 mm in diam.

Distribution and habitat.—Peninsular Florida; wet limestone coastal prairies and calcareous dunes of Gulf barrier islands; 0–25 m.
Selected specimens examined: **U.S.A.** Ficouna. **Collier Co.:** Correll 47737 (FTG, NY); Sheehan s.n. 7 Mar 1919 (NY). **Lee Co.:** Brumbach 9265 (BRIT, NY); Hitchcock 268 (NY).

Presumed hybrids with: 20. **L. strigocamara.** **U.S.A.** Ficouna. **Collier Co.:** Ertter 2261 (NY); Taylor & Taylor 5176 (BRIT). **Lee Co.:** Brumbach 8182 (NY); Brumbach 8283 (NY, US); Brumbach 9058 (VDB).

10. **Lantana kingii** Moldenke, Phytologia 8:161. 1962. **Type:** MEXICO. **OAXACA:** Isthmus of Tehuantepec, Niltepec, 17 Jul 1959, King 1775 (holotype: TEX; isotype: US!).

**Shrubs** erect or rounded, open; stems 0.5–2(–3) m; branches ascending and several; twigs, peduncles and often petioles glabrescent with scattered antrorse hairs, the hairs ca. 0.3–0.7 mm. **Leaf-blades** ovate, ovate-elliptic or ovate-triangular (rarely, especially if less than 2 cm long, obovate to rotundum), 1–8 cm long, the length (0.8–)1.2–2(–2.5) × width, not nigrescent, papery to subcoriaceous or subscuscent, triplinerved to pinninerved; base attenuately tapering onto petiole from middle or just below middle to abruptly contracted and broadly cuneate, sometimes forming a short narrow petiolar wing; apex acute or acuminate (or abruptly to broadly rounded); marginal teeth (3–)6–15(–25) per side, obtuse or rounded, spreading to appressed, then sometimes with tips recurved, with sinuses 1–2.5 mm deep; adaxial surface lustrous, scabrous, the hairs occurring on veins and intervening tissue (sometimes just center of areoles), 0.1–0.5 mm, 3–7(–12)/sq. mm, mostly deciduous leaving the noticeably vitreous-pustulate circular bases, these 0.2–0.5 mm in diam.; abaxial surface whitish or pale green but not glaucous, antrorsely strigose-scabrous to nearly glabrous, with the strigae scattered on veins and veinlets, 0.2–1 (longest ones usually 0.4–0.8) mm, 2–7/sq. mm. **Inflorescences** remaining hemispheric; peduncles about 0.5 to 1.5 × leaf length. **Proximal bracts** spatulate, oblanceolate, or oblong-oblanceolate, occasionally oblong-elliptic to broadly elliptic, (3.5–)5–10 mm long, 1.2–3 mm wide, widest in distal half (often just above middle), occasionally at or just below middle, with 3 veins from the base, appressed or spreading, persisting and reflexed from base in fruit; apex obtuse to acute; indument strigose, hardly ciliate, the longest hairs ≤ 0.5 mm. **Corolla** yellow to orange aging orange to orange-red; corolla tube 6–10 mm.

**Distribution and habitat.**—Mexico (central highlands to eastern slopes of the Sierra Madre Oriental, Pacific slope, and Isthmus of Tehuantepec) to northern Central America (only to central Guatemala?); thorn forest and scrubland; 0–2000 m.

Selected specimens examined: MEXICO. **Coahuila:** Johnston 9325 (LL[di]); Henrickson 18926 (NY); Waterfall 16661 (SMU). **Colima:** Gregory & Eiten 334 (BRIT). **Guerrero:** Fyr 623 (SMU). **Guerrero:** Mockford & Rowell 2790 (SMU). **Michoacán:** Turner 2024 (BRIT, SMU). **Neuvo Leon:** Garcia 10 (SMU); Pennell 16860 (NY); Waterfall 13187 (SMU); Waterfall 15312 (SMU[di]). **Oaxaca:** King 1328 (NY); King H64 (NY); King 1598 (NY); Purpus 7306 (NY). **Puebla:** Chiang et al. F-2610 (TEX); Davis 211 (NY); Martinez 21705 (TEX[di]). **Sinaloa:** Gentry 11454 (LL); Palmer 1511 (NY); Rose et al. 13366 (NY). **Sonora:** Wiggins & Rollins 138 (NY). **Tamaulipas:** Smith Mex. 94 (LL[di]).

Presumed hybrids with: 2a/4a. **L. horrida subsp. horrida** or **L. hirsuta subsp. hirsuta.** MEXICO. **Hidalgo:** Cañon 3 (BRIT). **Yucatan:** Hidalgo: Cañon 3 (BRIT).

18. **L. urticoides.** **MEXICO.** **Coahuila:** Henrickson 11352 (LL[di]); Maller 3069 (LL[di]); Reveall et al. 2604 (NY); Welhe 052 (TEX[di]); Wynd & Mueller 88 (NY). **Neuvo Leon:** Frye & Frye 2447 (NY); Meyer & Rogers 2686 (NY); Pringle 11670 (SMU). **Tamaulipas:** Meyer & Rogers 2499 (NY); Stanford et al. 2302A (NY). **20. L. strigocamara.** **MEXICO.** **Tamaulipas:** Kral 24799, alternatively × L. scabrida (VDB). See also taxa 1e, 2a, 4a, and 9i (as cv × 20) and section on hybrid synonymy: 1ex10, 1ex2ax10, 1ex10/20, 2ax10, 4ax10, 10×1a/1e?, and 10×2a/4a?

11. **Lantana ovatifolia** Britton, Bull. New York Bot. Gard. 4:123. 1905. **Type:** BAHAMA ARCHIPELAGO. **Grand Bahama:**

Feb 1905, Britton & Billspaugh 2450 (holotype: NY; isotype: F!).

**Shrubs** lax and trailing, sparse; stems 0.3–1 m; branches prostrate, few; twigs, peduncles and often petioles moderately strigose, the hairs 0.2–1.5 mm. **Leaf-blades** ovate to ovate-elliptic, 2–6 cm long, the length 1.2–1.7 × width, not nigrescent, papery to subcoriaceous, pinninerved; base rounded to tapering onto petiole mostly from proximal third; apex acute to obtuse or rounded; marginal teeth 8–18 per side, rounded to acute, often appressed, with sinuses 0.7–1.5 mm deep; adaxial surface lustrous, antorssely strigose to scabrous (due to loss of deciduous longer hairs), the hairs occurring on veins and intervening tissue (sometimes just center of areoles), 0.2–1 mm, 2–7/sq. mm, noticeably vitreous-pustulate, the circular bases 0.3–0.5 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, antorssely strigose-scabrous to nearly glabrous, with the strigae scattered on veins and veinsl, 0.2–1 (longest ones usually 0.4–0.8) mm, 2–7/sq. mm. **Inflorescences** remaining hemispheric; peduncles about 1–1.5 × leaf length. **Proximal bracts** spatulate or oblanceolate, 6–12 mm long, 1–3 mm wide, widest in distal half, with 3 veins from the base, appressed or spreading,
persisting and reflexed from base in fruit; apex obtuse to acute; indument strigose, hardly ciliate, the longest hairs ≤ 0.6 mm. **Corolla** yellow aging to a dark yellow or yellow-orange; corolla tube 6–10 mm.

**Distribution and habitat.**—Northern Bahama Archipelago; limestone pinelands with open or low shrubby understory; 0–25 m.

In certain respects *Lantana ovatifolia* is rather similar to *L. kingii*. However, as a narrow endemic with a narrow range of variation, it is best kept as a distinct species. This is further supported by its distribution, which is oddly disjunct from that of *L. kingii*. See Sanders (1987a) for detailed discussion and illustration.

Selected specimens examined: **BAHAMA ARCHIPELAGO.** Grand Bahama: Brace 3686 (NY); Correll & Popenoe 45402 (FTG, NY, SMU); Correll & Kral 42892 (FTG, VDB); Correll & Kral 42946 (FTG, VDB).

### 12. Lantana nivea Vent., Jard. Malmaison t.8. 1804

**Shrubs** lax, rounded and open, sometimes forming treelets; stems 0.5–4 m; branches ascending or divaricate, several to numerous; twigs, peduncles and often petioles thinly to moderately strigillose, setulose, or scabridulous, the hairs ≤ 0.5 mm.

**Leaf-blades** ovate, lanceolate or elliptic, 3–12 cm long, the length sometimes of those subtending inflorescences distinctly reduced (unique to this species), (1.5–)1.7–3(–3.6) × width, nigrescent, membranous to papery, triplinerved; base attenuately tapering onto petiole from widest point or abruptly narrowed to an often asymmetric, attenuate or cuneate petiolar wing; apex attenuate, acuminate, or acute; marginal teeth (13–)18–40 per side, obtuse, rounded, or acute, usually appressed, sometimes spreading at tip, with sinuses 0.2–1 mm deep; adaxial surface lustrous, antrorsely strigose to strigillose, with the strigae scattered on veins and veinlets and vitreous or whitened pustulate bases 0.1–0.3 mm diam.; abaxial surface slightly lighter or duller green than adaxial surface, antrorsely strigillose to strigose-scabrous, with the strigae scattered on veins and veinlets and sometimes on intervening tissue, 0.03–0.5 mm, 10–60/sq. mm, often with conspicuous vitreous or whitened pubicate bases 0.1–0.3 mm diam.; abaxial surface slightly lighter or duller green than adaxial surface, usually deciduous after flowering; apex acute, attenuate, or subulate; indument strigulose-scabridulous, hardly ciliate, the longest hairs ≤ 0.5 mm.

**Corolla** white aging white, pale pink or light blue, or opening pink, cream or yellow aging cream, yellow or orange infused with purple, pale yellow throat usually developed and fading with age; corolla tube 7–12 mm.

**Distribution and habitat.**—Eastern and southeastern Brazil; cultivated world-wide, escaped pantropically; understory and disturbance openings and man-made grasslands in tropical humid forest, occasionally in dry forest; 0–1500 m.

**KEY TO THE SUBSPECIES OF LANTANA NIVEA**

1. Corollas opening white aging white, bluish, or pale pink, or opening pink aging light purple; striage of adaxial leaf surface 0.03–0.3 mm long, those under 0.2 mm dominating and appearing as ascending conical rough points; striage of abaxial surface 0.03–0.3 mm or less long, never with filiform straight hairs to 0.3 mm mixed in ______________ a. subsp. nivea

1. Corollas opening pink, cream or yellow, aging cream, yellow or orange infused with purple; striage of adaxial leaf surface 0.05–0.5 mm long, the longer ones dominating; striage of abaxial surfaces 0.05–0.7 mm long (mostly 0.4–0.5 mm), often with scattered filiform straight hairs to 0.3 mm mixed in ______________ b. subsp. mutabilis


Leaf-blades with the indument of the adaxial surface composed of strigae, 0.05–0.5 mm; indument of the abaxial surface composed of strigae, 0.05–0.7 mm, often with short, straight filiform hairs to 0.3 mm mixed in. Inflorescences hemispheric but receptacle often elongating by slight separation or prolonged initiation of nodes and becoming naked below the hemispheric flower cluster at apex. Corolla white aging white, bluish or pale pink, or pink aging light purple.

Distribution and habitat.—Probably of cultivated hybrid origin, cultivated world-wide and escaped pantropically; understorey and disturbance openings and man-made grasslands in tropical humid forest, occasionally in dry forest; 0–1500 m.

Many of the native collections have narrowly elliptic leaf-blades. However, other native collections vary toward having the more ovate or lanceolate blades typically seen in cultivated plants of the species (e.g., the type specimens of Lantana nivea and L. triplinervia). There is a tendency, especially in the collections from Bahia, for a marked reduction in size of leaves subtending the inflorescences, resulting in a corymb-like arrangement of capitula.


**Shrubs** rounded and ± open, lax, or subcandent; branches ascending or clambering, several to few, occasionally herbaceous; twigs, peduncles and often petioles glabrescent to thinly setose or scabrous, the hairs (0.1–0.3–0.5–1 mm. **Leaf-blades** ovate, lanceolate, elliptic, or narrowly oblong, (3–)4–12–16 cm long, the length 1.3–2.5(–4) × width, nigraceous or not, papery to subcoriaceous, triplinerved to pinninerved; base rounded or truncate and abruptly tapered onto petiole or cuneate and often forming an attenuate wing; apex acute, abruptly acuminate, or attenuate; margin with the teeth (15–)25–40 per side, rounded to acute, often glaucous, antrorsely strigose-scabrous to nearly glabrous, with the strigae scattered on veins and veinlets, 0.1–0.4(–0.7) mm, 3–10/sq mm, not noticeably vitreous-pustulate, the circular bases of the strigae ca. 0.1–0.2 mm in diam; abaxial surface slightly lighter or duller green than adaxial surface, sometimes whitish green but not glaucous, antrorsely strigose-scabrous to nearly glabrous, with the strigae scattered on veins and veinlets, 0.1–0.6 mm, 3–10/sq mm. **Inflorescences** with peduncles 0.5–2 × leaf length. **Proximal bracts** lanceolate, oblong, or ovate-elliptic, often subfoliaceous, (4–6)–20 mm long, 2–8 mm wide, widest in proximal to middle third, occasionally distal third, with 5–7 veins from the base, appressed to spreading, persisting and recurved or reflexed in fruit; apex acute, briefly acuminate, or obtuse, often rounded at very tip; indument thinly strigose, usually not distinctly ciliate, with longest hairs 0.1–0.6(–1) mm. **Corolla** yellow, orange, or light red aging reddish orange to bright red (or occasionally intense reddish purple); corolla tube 7–12 mm.

**Distribution and habitat.**—Brazil (westernmost Amazonia, southern and central Planalto), the Guianas, Venezuela, Colombia, Ecuador, Peru, Bolivia and Paraguay; understory and disturbance openings in tropical humid forest, occasionally in dry forest or hard-pan savannas; 100–3000 m.

Lantana cujabensis is variable with respect to leaf-blade shape and width (broadly ovate to narrowly elliptic-oblong) and marginal serration, outer bract length and width, and altitude preference. Apparently the type specimens of L. cujabensis and L. riedeliана represent the broad-leaved, toothed vs. narrow-leaved, subentire extremes, respectively; that of L. tenuifolia is intermediate. Different specimens exhibit all possible combinations, which do not correlate with geography, therefore, no infraspecific taxa are justifiable based on the sample studied.

Selected specimens examined: BOLIVIA. Cochabamba: Jaramillo et al. 1212 (MO); Ritter 1644 (MO); Steinbach 644 (F, MO, NY, SMU); Teván et al. 1927 (MO). Santa Cruz: Guillén & Roca 3334 (F); Steinbach 347 (NY, SMU); Steinbach 794 (SMU). BRAZIL. Acre: Albuquerque et al. 1366 (MO); Santos et al. 49 (NY). AMAZONAS: Maas & Maas 273 (MO). Bahia: dos Santos & Barreto 65 (LL[di!]). RONDÔNIA: Teixeira et al. 331 (MO).

COLOMBIA. AMAZONAS: Gillett & Sampson 16497 (MO). Boyaca: Lawrence 209 (F). Choco: Diaz 3478 (MO). META: Betancur 1336 (MO); Ohba et al. 671 (MO). PUTAMAYO: Cattacresas 11189 (F). ECUADOR. COTOPAXI: Schlidt 13277 (F); Holm-Nielsen et al. 3016 (F). NAPo: Abbott 15637 (MO); Campos 135 (F); Cerón 278 (MO); Croat & Hannon 93505 (MO); Ponce & Ghia 320 (MO). PERU: AMAZONAS: Castro et al. 18843 (MO); Castro et al. 18983 (MO); Lewis et al. 18100 (MO). CUSCO: Huamantupa 4024 (MO). HUANUCO: Macurdy 1007 (F, MO); Schunke 2992 (F). LORETO: Fosberg 29017 (F); Fosberg 29104 (F); Gentry et al. 15599 (F); Rimachi 6589 (F, MO). MADRE DE DIOS: Gentry et al.
D. Lantana sect. Lantana series Spicatae R.W. Sanders, ser. nov. Type: Lantana viscosa Pohl ex Schauer

Adaxial leaf surfaces strigose-villosulous to setose-villosous, the hairs up to 2.5 mm; abaxial leaf surfaces setose or pilose, often densely so, the hairs occurring on veins and non-innervated tissue, setiform or filiform, 0.2–2.0 mm. Inflorescences initially hemispheric becoming short-cylindric by prolonged initiation of flowers or elongation of internodes.


Shrubs erect or rounded and open to lax and subscandent; stems 1–3 m; branches ascending and numerous to clambering and few; twigs, peduncles and often petioles sparsely setose but viscid with dense understory of conspicuous stalked glands mixed with short hairs, the setae 1–2 mm, the stipitate glands and short hairs, ca. 0.5 mm. Leaf-blades broadly ovate, ovate, or ovate-elliptic, 2–8 cm long, the length 1.4–1.8(–2.2) × width, not nigrescent, papery, pinninerved; base usually rounded to truncate, sometimes broadly cuneate or subcordate, briefly narrowly cuneate onto petiole at very base; apex usually abruptly acuminate, sometimes acute; marginal teeth (10–)20–35 per side, acute to rounded, spreading to ascending, rarely appressed with tips recurved, with sinuses (0.3–)0.6–1.5 mm deep; adaxial surface dull, setose to villous, the hairs occurring on veins and non-innervated tissue, longer ones 1–1.5 mm or more (shorter ones ± 0.5 mm, often mixed glandular and eglandular), 30–70/sq. mm, not noticeably vitreous-pustulate, the circular bases of the hairs ca. 0.1–0.2 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, setose to villous, the hairs on all veins and intervening tissue, longer ones 1–1.5 mm or more (understory hairs 0.3–0.8 mm, these often mixed glandular and eglandular), 50–150/sq. mm. Inflorescences occasionally 2 per leaf axil, becoming short-cylindric by prolonged initiation of flowers; peduncles 0.5–1.3 × leaf length. Proximal bracts lanceolate or elliptic to ovate-elliptic, (2.5–)4–7 mm long, 1.5–3 mm wide, widest in proximal or middle third, with 3 veins from the base, ± spreading, persisting (proximally ± cupped around enlarging fruit) and becoming reflexed (± distally only) in fruit; apex abruptly acuminate with prolonged tip to caudate; indument setose-pilose, usually ciliate, often also stipitate-glandular, the longest hairs 0.7–1.5 mm. Corolla reddish purple to pale pink, often with white or yellow throat, occasionally white; corolla tube 5–10 mm.

Distribution and habitat.—Venezuela, Brazil (northern, eastern, and southern), Paraguay, Bolivia, and Peru, possibly also Ecuador, Colombia, and the Guianas; widely distributed but infrequent; openings in tropical evergreen forest, tropical savanna with gallery forest, and areas of dense woodlands, shrubland, and grassland; 100–1200 m.


Presumed hybrids with: 15. L. micrantha. PARAGUAY. Cordillera: Mereles & Degen 5522 (MO). See also taxa 2c, 4b, and 12a and section on hybrid synonymy: 12ax14.


Shrubs erect or rounded, open; stems 0.5–2 m; branches ascending and several; twigs, peduncles and often petioles moderately to densely setulose, setose, pilose, or also stipitate-glandular, the hairs usually 0.5–1.2 mm (these sometimes lacking), mixed with shorter glandular and eglandular hairs about 0.2–0.3 mm. Leaf-blades
broadly ovate, ovate-deltate, elliptic-ovate, or elliptic-lanceolate, (1.5–)3–9 cm long, the length 1.3–2 × width, not nigrescent, papery, usually pinninerved, sometimes triplinerved; base usually rounded to truncate, sometimes broadly cuneate or cordate, briefly narrowly cuneate onto petiole at very base; apex usually acute, sometimes abruptly acuminate or rounded; marginal teeth 10–35 per side, rounded, obtuse, or sometimes acute, usually spreading, with sinuses 0.4–1 mm deep; adaxial surface dull, antrorsely strigillose to strigose-pilose, the hairs occurring on veins and intervening tissue, the thin canopy of hairs only 0.2–0.5(–0.9) mm with understory of shorter hairs sometimes developed, 20–100/sq. mm, not noticeably vitreous-pustulate, the circular bases of the strigae 0.05–0.2 mm in diam.; abaxial surface duller green than adaxial surface, moderately densely (occasionally sparsely) pilose, the hairs on all veins and intervening tissue, 0.3–0.5 mm, all about same length, 40–250/sq. mm. Inflorescences occasionally 2 per leaf axil, elongating in fruit by expansion of internodes; peduncles 0.5–1.2 × leaf length. Proximal bracts ovate-elliptic to oblong-elliptic or -lanceolate, (2.5–)3–4.5(–6) mm long, (1–)1.5–2 mm wide, widest usually near middle, with 3 veins from the base, appressed or ascending, deciduous in fruit or persisting and becoming reflexed from base; apex acute to obtuse, sometimes abruptly acuminate to briefly attenuate; indument pilose to strigilloso, not ciliate, the longest hairs 0.2–0.5 mm. Corolla pink to rose-red or reddish purple, yellowish throat developed at least in some cases; corolla tube 2–4 mm (briefly or not exserted beyond bract).

Distribution and habitat.—Central Bolivia, Paraguay, northern Argentina, and possibly southern Brazil; savanna, thickets, shrubland, thorn forest, tropical semi-evergreen forest, gallery forest; sandy or alluvial soil; 150–1500 m.


Presumed hybrids with: 17 L. planaltensis. PARAGUAY. Paraguari: Zardini & Perez 2844 (MO). See also taxa 2c, 4b, 13, 14 and 17, and section on hybrid synonymy: 4bc15, and 15×13/20?

SPECIES OF PRESUMED HYBRID ORIGIN BETWEEN SPECIES OF DIFFERENT SERIES


Shrubs erect or rounded, open; stems 0.5–2.5 m; branches ascending or spreading, several; twigs, peduncles and often petioles glabrescent to strigose, the hairs 0.05–0.5 mm. Leaf-blades ovate-triangular, lanceolate-triangular, or elliptic, (1–)2–7 cm long, the length (1.3–)1.7–3.3 × width, often nigrescent, papery to subcoriaceous, triplinerved; base rounded or tapering from below middle of blade, usually shortly, narrowly cuneate onto petiole at very base; apex attenuate, acute or obtuse, or rarely rounded; marginal teeth 9–25 per side, rounded, obtuse, or sometimes acute, some times abruptly acuminate or rounded; marginal teeth 10–35 per side, rounded, obtuse, or sometimes acute, usually deciduous after flowering; apex acute to rounded; indument pilose to strigillose, hardly ciliate, the longest hairs 0.2–0.3(–0.5) mm. Corolla opening yellow or yellow-orange aging orange or red-orange; corolla tube 4–9 mm.

Distribution and habitat.—Central and southern Bahama Archipelago; thorn and sclerophyll shrubland/woodland, thickets and disturbance openings on thin calcareous soils; 0–70 m.

Morphological near intermediacy suggests that Lantana bahamensis originated from hybridization be-
tween the more or less sympatric taxa *L. camara* subsp. *camara* and *L. splendens*, probably prior to European colonization or perhaps human habitation. Moreover, the range of variation is narrower than expected for a hybrid swarm, and the distribution extends beyond the area of sympatry.

Selected specimens examined: BAHAMA ARCHIPELAGO. Cat Island: Britton & Millsbaugh 5763 (NY); Correll 46083 (FTG, NY); Correll 46988 (FTG, SMU). Eleutheria: Lewis 7232 pp. (FG). Grand Caicos: Gills 12317 (LL). Great Exuma: Correll & Correll 42298 (FTG, NY); Correll & Correll 42615 (FTG, NY). Long Island: Correll 48177 (FG, LL); Hill 2205 (LL, NY). New Providence: Britton 3441 (NY); Correll 45798 (FTG, NY); Gills 8364 (LL).


**Shrubs** erect or rounded, open; stems 0.5–4 m; branches ascending, several; twigs, peduncles and often petioles moderately to densely puberulent or setulose, sometimes with stipitate glands intermixed, the hairs mostly 0.1–0.4 mm, occasionally up to 0.8, rarely to 1 mm. **Leaf-blades** ovate, lanceolate or elliptic, 2–10 cm long, the length (1.4–)1.7–2.7 × width, ± nigrescent, papery, triplinerved; base attenuate onto petiole from widest point or rounded and abruptly narrowed to an often attenuate or cuneate petiolar wing; apex usually acuminate, sometimes acute; marginal teeth (14–)20–35(–50) per side, rounded, obtuse, or acute, spreading to appressed, then sometimes tip recurved, with sinuses 0.3–1.2 mm deep; adaxial surface dull to somewhat lustrous, antrorsely strigillose to strigose-pilose, the hairs occurring on veins and intervening tissue, forming a thin canopy of hairs only 0.3–0.5(–0.8) mm with understory of shorter hairs often well developed, (2–)20–80(–200)/sq. mm, sometimes vitreous-pustulate, the circular bases of the strigae ca. 0.1–0.3 m in diam.; abaxial surface slightly lighter or duller green than adaxial surface, moderately densely to sparsely pilose, if some strigiform hairs mixed in, then filiform hairs dominating, the hairs on all veins and intervening tissue, 0.05–0.5 mm, all about same length (or those on areoles evenly much shorter), occasionally a few along midrib to 0.8 mm, 20–150/sq. mm. **Inflorescences** occasionally 2 per leaf axil, remaining hemispheric; peduncles 0.2–0.7(–1.3) × leaf length. **Proximal bracts** linear-, narrowly elliptic-, or lanceolate-oblong (occasionally 1 or 2 outermost bracts subfoliar or narrowly spatulate and distinctly longer), 4–7 mm long, 0.5–1.5 mm wide, widest in proximal or middle third, with 3 veins from the base, appressed or spreading, usually deciduous after flowering; apex acute to attenuate, often rounded at very tip; indument pilose to strigillose, hardly ciliate, the longest hairs 0.2–0.3(–0.5) mm. **Corolla** opening yellow or white with yellow throat, aging to dark yellow, orange, or red, or opening white becoming infused with pink, blue, or purple, or opening pink, aging pink, purple, or white with yellow throat (those opening with yellowish pigments becoming infused with purple also expected); corolla tube 7–12 mm.

**Distribution and habitat.**—The Planalto of eastern and southern Brazil, northeastern Argentina, and eastern Paraguay; openings in tropical semi-evergreen forest, tropical savanna with gallery forest or areas of dense woodland, shrubland, and grassland; 0–1000 m.

The intermediacy and rather wide variation in characters that are less variable in other species suggests *Lantana planaltensis* to have arisen by hybridization between *L. horrida* subsp. *tilifolia* and *L. nivea* subsp. *nivea*. Furthermore its geographic distribution far exceeds the zone of contact of the probable parental species, verifying its status as an independent species. The new name is required because *L. hispida* Kunth (= *L. horrida* da *tilifolia*) already exists. Most of the plants annotated by H.N. Moldenke and me as “*Lantana triplinervia*” are included here.

Selected specimens examined: ARGENTINA. Buenos Aires: Cabrera 7020 (SMU, VBD); Krapovickas 2891 (SMU). Misiones: Elman 1985 (F); Schwarz 3635 (SMU); Schwarz 4074 (F); Zuloaga et al. 6633 (MO). BRAZIL. Distrito Federal: Heringer 13834 (NY); Heringer et al. 4233 (NY). Goiás: Anderson 9479 (NY). Mato Grosso do Sul: Hatschbach 49116 (LL); Salvador 3094 (US). Minas Gerais: Hatschbach 25966 (US); Hatschbach 46673 (NY); Mexia 5436 p.p. (US). Paraná: Hatschbach 11224 (F); Hatschbach 16038 (VBD); Hatschbach 24154 (US); Hatschbach 41549 (NY); Wasum 2498 (BRIT); Winder 001 (BRIT). Paranaíba: Silva et al. 82 (MO, US). Rio de Janeiro: Carauta 3430 (LL); Rio Grande do Sul: Macedo 5507 (NY); Schneid 9562b (US); Wasum et al. 1425 (US); Winder 006 (BRIT). Santa Catarina: Reitz & Klein 1778 (F);
Presumed hybrids with: See also taxa 2c, 4b, 9i (as cv.), 12a, 12b, 13 and 15 and section on hybrid synonymy: 2cx17 and 12bx17.

18. Lantana urticoides Hayek, Repert. Spec. Nov. Regni Veg. 2: 162. 1906. **Type**: U.S.A. **Texas**: 1845–1846, Lindheimer Fl. **Texas**. **Exsic. No. 503** (**Lectotype**, here designated: W [access. no. not recorded]!). Because **Exsic. No. 503** consists of two collection numbers (usually not identified on the sheets), which were mass collections, themselves mixed as to possibly including some hybrids, the duplicates should not be regarded as isotypes but as syntypes. Remaining **Syntypes**: U.S.A. **Texas**. **Kerr Co.**: “Upper Guadalupe River,” Jun 1845 (Lindheimer 384) and **Comal Co.**: New Braunfels, Aug 1856 (Lindheimer 306). **Lindheimer Fl. Tex. Exsic. No. 503** (CAN, n.v., F!, GH[2]!, MO[2]!, SMU!, UC!, W [access. no. 9332]!). **U.S.A. Texas. Comal Co.**: Matthes N. Amer. Pl. 19 (W, not found).


**Shrubs** erect or rounded, open; stems 0.6–2 m; branches ascending, several to numerous; twigs, peduncles and often petioles thinly to densely setose, the hairs 0.1–1.8 mm, the longest 0.8–1.8 mm. **Leaf-blades** broadly ovate or ovate-deltate to rotund, (1–)2–9 cm long, the length 1–1.5 × width, not nigraceous or only somewhat so, membranous to papery, pinninerved; base rounded, truncate, or cordate; apex rounded to abruptly acute; marginal teeth 5–15 per side, acute to obtuse, spreading, with sinuses (1–)1.5–5 mm deep; adaxial surface dull to occasionally lustrous, scabrous-setose to villous, the hairs occurring on veins and intervening tissue, 0.1–1.5 (longest ones usually 0.7–1.5) mm, (2–)5–20/sq. mm, noticeably vitreous-pustulate or not, the circular bases of the hairs ca. 0.1–0.5 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, thinly to moderately densely setose or setulose to pilose, the hairs on most veins and some intervening tissue, longest ones 1.5–2 mm on proximal portions of major veins, those increasingly distal gradually reduced (near margin ca. 0.7 mm), those on intervening tissue mostly 0.2–0.5 mm, 5–20/sq. mm. **Inflorescences** remaining hemispheric; peduncles 0.8–2.3 × leaf length (usually nearly twice when mature). **Proximal bracts** narrowly oblanceolate or spatulate to elliptic-oblong, (5–)7–12 mm long, (1–)1.5–3 (rare outermost one subfoliar to 5) mm wide, widest in distal half or near middle, with 3 veins from the base, appressed or spreading, persisting and reflected from base in fruit; apex obtuse or acute; indument strigose, ciliate or not, the longest hairs 0.3–0.7 mm. **Corolla** opening yellow, aging to red-orange; corolla tube 7–12 mm mm.

**Distribution and habitat.**—Central and southern Texas, Mexico (Coahuila, Nuevo León, Tamaulipas), apparently cultivated and naturalized across the southwestern and southeastern United States from northern Texas to California and to Florida and North Carolina; open woodlands, brushland, thickets, and grasslands on calcareous clays or sandy soils; 0–1000 m.

**Lantana urticoides** likely originated by hybridization between *L. hirsuta* subsp. *hirsuta* and *L. kingii*, having developed greater frost tolerance and a more northerly distribution than either parental species.

Selected specimens examined: **MEXICO. Tamaulipas**: *Dominguez & McCarty* 8231 (SMU). **U.S.A. Texas. Aransas Co.**: *Uzellan* 51 (US); **Comal Co.**: Lindheimer 334 (May 1850) (SMU). **Duval Co.**: *Mahler* 5287 (SMU). **Live Oak Co.**: *Whitehouse* 18366 (SMU). **Medina Co.**: *Chaves et al.* 99 (SMU); **San Patricio Co.**: Jones 83 (SMU); **Somervell Co.**: Helm s.n. 9 May 1948 (SMU). **Starr Co.**: *Garza et al.* 8470 (SMU). **Travis Co.**: *Hansen 26* (VDB); *Lundell & Lundell* 8928 (SMU). **Uvalde Co.**: *Dickie* 70 (SMU); **Willacy Co.**: *Lundell & Lundell* 8751 (SMU).

Presumed hybrids with: 20. **L. striogocamara. MEXICO. Coahuila**: Havard s.n. May 1883 (US); **Nuevo León**: Rodríguez 62 (SMU); Dodge 100 (NY). **Tamaulipas**: Berlandier s.n. 1836 (NY). **U.S.A. Alabama. Baldwin Co.**: *Kral* 39330 (NY, VDB). **Crenshaw Co.**: *Diamond 11455* (BRIT[di]!). **FLORIDA. Citrus Co.**: *Kral* 4542 (SMU). **Marion Co.**: *Slaughter* 13954 (BRIT[di]!, SMU). **Monroe Co.**: *Kral* 35896 (VDB). **GEORGIA. Charlton Co.**: *Duncan* 22077 (VDB). **LOUISIANA. Beauregard Par.**: *Thomas* 135343 (BRIT, NY). **Winn Par.**: *Thomas* 139711 (BRIT[di]!, NY). **SOUTH CAROLINA. Orangeburg Co.**: *Leonard et al.* 5001 (VDB). **TEXAS. Blanco Co.**: *Sanders* 5143 (SMU). **Cameron Co.**: *Hotchkiss 6244* (US); **Dallas Co.**: cult. Niblack 50 (SMU). **Fayette Co.**: *Kral* 68519 (VDB); **Galveston Co.**: *Wallace* 2577 (US); **San Saba Co.**: *Oliver* 12 (SMU). **Tarrant Co.**: *Kral* 91917 (VDB); **Whitehouse 16027** (SMU). **Val Verde Co.**: *Spjut & Marin* 15152 (BRIT). See also taxa 4a, 6, 9i, 9j (as cv.), and 20 and section on hybrid synonymy: 18x20.


Shrubs rounded and ± open, lax, or subscandent; stems 0.5–5 m; branches ascending and several or clambering and few, occasionally herbaceous; twigs, peduncles and often peiioles moderately setose or pilose, often with stipitate glands mixed in, or occasionally glabrescent, the hairs (0.1–)0.3–0.6(–1) mm. Leaf-blades broadly to narrowly ovate or ovate-elliptic, 3–9 cm long, the length 1.4–2.2 × width, nigrescent or not, papery, usually pinninerved; base rounded to subcordate and abruptly tapered onto peiiole or cuneate; apex acuminate, sometimes with a prolonged narrow tip, or acute; marginal teeth 15–35 per side, rounded or acute, often appressed, then sometimes with tips recurved, with sinuses 0.5–1.5 mm deep; adaxial surface usually dull, antrorsely strigose or strigose-setose, the hairs occurring on veins and intervening tissue, 0.1–1.2 mm, 3–20/sq. mm, usually not noticeably vitreous-pustulate, the circular bases of the hairs ca. 0.1–0.2 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, sometimes whitish green but not glaucous, antrorsely strigose to spreading-setose, with the hairs frequent on veins and veinlets, 0.1–0.7 mm, 3–10/sq. mm. Inflorescences often 2 per leaf axil, becoming short-cylindric (resembling spikes of Carex lupulina) by prolonged initiation of flowers; peduncles 0.5–1(–2) × leaf length. Proximal bracts lanceolate to lanceolate-elliptic, (4–)6–8(–10) mm long, (1.5–)2–3 mm wide, widest in proximal third to just below middle, with 5–7 veins from the base, spreading, persisting and recurved or reflexed (± distally) in fruit; apex acuminate with prolonged tip; indument setose or strigose to glabrescent, usually distinctly ciliate, the longest hairs (0.3–)0.5–1 mm. Corolla rose-pink or white with pale yellow throat and aging pinkish purple, rarely yellow to red-orange; corolla tube 7–12 mm.

Distribution and habitat.—Brazil (central and eastern Amazonian), the Guianas, Venezuela (Amazonian) Colombia (Amazonian), and Bolivia (Amazonian); disturbance openings, savannas and man-made grasslands in tropical humid forest; 50–300 m.

Lantana paraensis exhibits characters of both L. cujabensis and L. viscosa, suggesting that it arose from natural hybrids of the two. Its species status is suggested by greater consistency in the expression of its traits than expected of a hybrid swarm and the much wider distribution than the area of sympatry of the proposed parental taxa.

Selected specimens examined: BOLIVIA. Santa Cruz: Guillen & Roca 3523 (F). BRAZIL. Amapá: Fröes & Black 27459 (F). AMAZONAS: Croat 62252 (MO); Tsagaru & Sano B-598 (MO). PARA: Ginzberger 822 (F); Plowman et al. 9685 (F); Secco et al. 198 (US). RONDÔNIA: Teixeira et al. 664 (F, NY).


Presumed hybrids with: See also taxa 1d, 2c, 4b, and 13.


Shrubs erect or rounded, open; stems 0.3–3 m; branches ascending, several to numerous; twigs, peduncles and often peiioles thinly to moderately strigose, setose, or pilose, the hairs 0.1–1.2(–1.5) mm, the longest mostly 0.5–1 mm. Leaf-blades ovate to broadly ovate, (2–)5–10 cm long, the length 1–1.7 × width, usually not nigrescent, papery, pinninerved; base rounded, truncate, or cordate, shortly and narrowly cuneate onto peiiole at very base; apex usually acuminate; marginal teeth 15–40 per side, rounded to acute, often appressed, sometimes spreading at tip, with sinuses 0.5–1.5 mm deep; adaxial surface usually dull, antrorsely strigose or strigose-setose, the hairs occurring on veins and intervening tissue (sometimes just center of areoles), 0.2–1.2 (longest mostly 0.5–0.8) mm, 1–12/sq. mm, not noticeably vitreous-pustulate, the circular bases of the strigae ca. 0.1–0.2 mm in diam.; abaxial surface slightly lighter or duller green than adaxial surface, antrorsely strigose-scabrous, with the strigae scattered to moderately dense on veins and veinlets, 0.1–0.6 (longest ones usually 0.4–0.6) mm (sometimes accompanied by scattered short [mostly ≤ 0.3 mm] erectiflor hairs along
major veins), 4–20/sq. mm. **Inflorescences** remaining hemispheric; peduncles 0.5–1.2 × leaf length. **Proximal bracts** narrowly triangular, linear-lanceolate, or linear-oblong (including those with slight constriction in proximal third; occasionally 1 or 2 outermost bracts subfoliar or narrowly spatulate), 3–5–8–(10) mm long, 0.8–1.5 (rarely an occasional subfoliar bract up to 2) mm wide, widest at or just above the base, with 3 veins from the base, appressed or spreading, deciduous after flowering; apex acute to attenuate; indument strigose or strigillose, hardly ciliate, the longest hairs 0.2–0.6 mm. **Corolla** opening yellow or creamy white (rarely pure white) with yellow throat, aging to cream, dark yellow, orange, or red (rarely remaining white), often infused with pink or purple; corolla tube 7–12 mm.

**Distribution and habitat.**—Of cultivated origin; cultivated worldwide and escaped pantropically (especially southern United States, Caribbean Basin, India, Sri Lanka, Southeast Asia, and tropical Africa); open woodland, thickets, disturbance openings and man-made grassland, calcareous or sandy soils; 0–2000 m.

Sanders (2006) discussed *Lantana strigocamara* at length, and Sanders (1987a) illustrated the species (as “camara”).


1d×12b. *Lantana camara* × *L. nivea* subsp. *mutabilis*


1ex2a. Lantana camara subsp. glandulosissima × L. horrida subsp. horrida

1ex2a×10. Lantana camara subsp. glandulosissima × L. horrida subsp. horrida × L. kingii

1ex4a. Lantana camara subsp. glandulosissima × L. hirsuta subsp. hirsuta

1ex10. Lantana camara subsp. glandulosissima × L. kingii

1ex10/20. Lantana camara subsp. glandulosissima × L. kingii or L. strigocamara

1f×2. Lantana camara subsp. aculeata × L. horrida (probably subsp. horrida)

1f×4. Lantana camara subsp. aculeata × L. hirsuta

1f×C. Lantana camara subsp. aculeata × L. sp. Ser. Strigosae

2×C. Lantana camara horrida (probably subsp. horrida) × L. sp. Ser. Strigosae

2a×4a. Lantana horrida subsp. horrida × L. hirsuta subsp. hirsuta

2a×10. Lantana horrida subsp. horrida × L. kingii

2ax20. Lantana horrida subsp. horrida × L. strigocamara

2c×4b. Lantana horrida subsp. tiliifolia × L. hirsuta subsp. amazonica
Lantana armata Schauer, Linnaea 20:480. 1847. Type: VENEZUELA. Caracas, Moritz 292 (lectotype: BM, barcode BM000992637[di!]; isotype: W!).

2c×12b. Lantana horrida subsp. tiliifolia × L. nivea subsp. mutabilis
2cx13. Lantana horrida subsp. tiliifolia × L. cujabensis


2cx17. Lantana horrida subsp. tiliifolia × L. planaltensis


2/4x? Complex hybrid involving Lantana horrida or L. hirsuta


2ax10. Lantana hirsuta subsp. hirsuta × L. kingii

*Lantana kingii* hybrid (× *L. horrida* subsp. *horrida* or *L. hirsuta* subsp. *hirsuta*?)

2ax1e. Lantana kingii hybrid (× *L. strigocamara*

2b×12a. Lantana kingii Hybrid Group cultivars (derived from tetraploid cv. *L. depressa* var. *depressa* × *L. strigocamara*)

2b×12a. Lantana kingii Hybrid Group cultivars (derived from tetraploid cv. *L. depressa* var. *depressa* × *L. strigocamara*)

2ax13. Lantana hirsuta subsp. amazonica × L. nivea subsp. nivea


4bx12a. Lantana kingii Hybrid Group cultivars (derived from tetraploid cv. *L. depressa* var. *depressa* × *L. strigocamara*)

9i-cv×20. L. Callowiana Hybrid Group cultivars (derived from tetraploid cv. *L. depressa* var. *depressa* × *L. strigocamara*)

9i-cv×20. L. Callowiana Hybrid Group cultivars (derived from tetraploid cv. *L. depressa* var. *depressa* × *L. strigocamara*)

9i-cv×20. L. Callowiana Hybrid Group cultivars (derived from tetraploid cv. *L. depressa* var. *depressa* × *L. strigocamara*)


Sanders (2001) argued that the parents of the Callowiana Hybrid Group were *Lantana strigocamara* and *L. depressa* var. *depressa* rather than *L. strigocamara* and *L. montevidensis* (as claimed by Monrovia Nursery, see Howard 1969) based on character intermediacy and chromosome number incompatibility of the latter combination. However, one likely hybrid of *L. montevidensis* with *L. strigocamara* was seen for this study (see taxon 20), but it is very different in character details from the Callowiana Hybrid Group cvs, as well as appears to be sterile.

9ii×20. Lantana depressa var. *floridana* × *L. strigocamara*


10×1a/le? Lantana kingii hybrid (× *L. camara* subsp. *camara* or subsp. *glandulosissima*?)


10×2a/4a? Lantana kingii hybrid (× *L. horrida* subsp. *horrida* or *L. hirsuta* subsp. *hirsuta*?)


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12×6/7? *Lantana nivea* × *L. scabrida* or *L. splendens*?


12ax14. *Lantana nivea* subsp. *nivea* × *L. viscosa*


The collections known to me combine the reduced leaves subtending inflorescences typical of some *Lantana nivea* subsp. *nivea* (see comments, taxon 12a) and the stipitate glands, bracts, and elongating receptacles of *L. viscosa*. They are geographically restricted near the type locality of *L. pohliana*, which is the area of sympathy of the two species. For a narrowly endemic taxon, they exhibit a pronounced inconsistency in structure, length, and density of trichomes compared to other natural taxa. These data suggest that the collections represent independent spontaneous hybrids, or at most, an unstable hybrid swarm. Thus, *L. pohliana* is not recognized as a taxon.

12bx17. *L. nivea* subsp. *mutabilis* × *L. planaltensis*


15×13/20? *L. micrantha* × *L. cujabensis* or *L. strigocamara*


18×20. *L. urticoides* × *L. strigocamara*


EXCLUDED AND DUBIOUS NAMES


**EPILETHE INDEX (USING TAXON AND HYBRID SYNONYM CODES; EDN=EXCLUDED AND DUBIOUS NAMES)**

- aculeata:1a, 1f, 12a, 12b, 1×2a×6, 1×4, 2×20, 2/4×?, 10×1a/1e?
- aculeatissima:1×2a
- aculeifera:1×2c

- alba:12a, EDN.
- albiflora:1×2, 12×1a/2b, 1×20, 1×2c×17, 1×20

- americana:12b
- antiotalis:1×2×12
- antillana:2

- arida:1b, 2b, 2bi
- armata:1d, 12b, 19, 1×6, 2×4b, 4×15

- asperata:EDN.
- aurea:9i

- bahamensis:9ii, 9i×20

- barbari:EDN.
- bracteosa:4a×10

- brittonii:6

- callowiana:9i×20
- camara:1, 1a–1e, 2a, 2b, 7, 12a, 12b, 14, 1×6, 1×2d, 1×2b, 1×20, 1f×2c, 2a×20, 2×12b, 9i×20, 10×1a/1e?, 12×6/7?, 12×14, EDN.

- canescens:1a×16

- coccinea:1×6

- cumingiana:1c

- depressa:9, 9−iiii

- etenorum:2×4b, flava:1×6, 1×2c
- floridana:9i×20
- foetida:2a

- formosa:1a
- glandulosa:2c, 12×1b

- glandulosissima:1×2a, 1×4a, 1×10

- glutinoso:2c, 2c×13

- grandiflora:2a

- grandis:1×2a, 1×6, 2a×4a, 4a×10

- hispida:2a, 1×2a

- hirta:1×4a, 4a×10

- hybrida:2a×2c

- incarnata:12b

- inermis:2×4a

- insularis:5

- kingii:10

- latibacteata:18

- leonardorum:3

- longibacteata:4b×12a

- lopex-palacii:EDN.

- macrantha:2a

- macrophylla:2a×10

- microphylla:1×2a

- minasensis:12a, 17, 4b×12a, 12×17

- mista:1f, 1×4a

- moldenkei:1c

- montevidensis:9i

- moritziana:1d, 1×6, 1×2c, 1×20/20

- multicolor:EDN.

- multiflora:12×6/7?

- mutabilis:1f, 12b, 20, 1f×2

- nana:9i×20

- nivea:1f, 12, 12a, 12b

- notha:EDN.

- obtusifolia:1a

- orientalis:2c

- ovatifolia:9i, 11

- paragensis:19

- parviflora:2a

- parvifolia:1×2a, 1×6, 1×10, 10×1a/1e?

- planaltensis:17

- pohliana:12a×14

- polyacantha:2a×4a

- portoricicensis:1b

- puberulenta:12b×17

- pubescens:EDN.

- pulchra:EDN.

- punctata:EDN.

- purpurea:1f×4, EDN.

- reclinata:9i

- riedeliana:13

- robusta:4b×12a

- rosea:EDN.

- rubella:2a×20

- rubello-flavescens:1×2b

- rubra:18×20

- rugosa:2×13

- sandersii:6

- sanguinea:1f

- sanibelensis:9ii

- sargentii:2b

- scabrida:6

- scabridifolia:13

- scandens:6

- scortata:4a

- splendidiss:7

- strigicamara:20

- suaveolens:1f

- subcordata:2b

- subinermis:1a, 1f, 12a, 12b, 1f×4

- tenuifolia:13

- ternifolia:12a, 4a×10, 10×2a/4a?

- tenuifolia:1d

- tiliifolia:2c

- triplinervia:1×2a, 1×2c

- triloba:1a, 1b, 1c

- urticifolia:1a

- ussuriensis:12a

- varia:1f

- variegata:1f

- violacea:1×6

- viridis:14

- vulgaris:1a

- weberbaueri:2c×4b

- zanoni:2b, 2bi

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**REFERENCES**


Sanders, Taxonomy of Lantana sect. Lantana


