

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CLXXXV.

ADDITIONS TO THE GENUS *LASIOLAENA*

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Recent efforts in the study of the Eupatorieae of eastern and central Brasil would indicate that a great number of undescribed taxa remain in these inadequately collected areas. The genus *Lasiolaena* of Bahia is a particularly good example, where the few known collections almost all represent new species, and none of the previously known species has been recollected. It is a symptom of the most preliminary stage of plant exploration.

The first member of the genus *Lasiolaena* was recognized as *Eupatorium blanchetii* Sch.Bip. ex Baker in the Flora Brasiliensis (1876). Almost a hundred years later, King and Robinson (1972) established the genus *Lasiolaena* for *E. blanchetii* and for a second previously undescribed species. A recent trip to Bahia by the senior author has now resulted in the collection of two more undescribed species. We provide here a review of the four presently known species of the genus.

*Lasiolaena* is most readily recognized by the spirally arranged obovate tomentose leaf-blades occurring with heads containing numerous pink or lavender flowers. The involucre are slightly subimbricate, and the receptacles are distinctly conical with at least some hairs. The style branches are usually distinctly broadened and flattened at the tips, as in the genera *Agrianthus* and *Arrojadocharis* which are apparently closely related. There are no hairs on the shaft of the style and no stipitate-glandular hairs on the corolla as in *Stylotrichum*, but the latter is also probably closely related. The pappus setae are almost subulate or awn-like in aspect with the lateral margins forming a narrow wing below. The genus *Bahianthus* superficially seems like a glabrous variant of *Lasiolaena*, but the former differs in numerous significant details that indicate more remote relationship, the inflorescence is subfasciculate in its branching pattern, the receptacle is plane or only slightly conical, the style branches are scarcely broadened or flattened distally, the achenes are glabrous, and the pappus setae are more irregular in width without the narrowly winged bases.

Key to the species of *Lasiolaena*



1. Leaves mostly ca. 6 mm wide, short-acute; undersurface thinly covered with flaccid thin-walled hairs which are concentrated between the nerves, darker color and glandular dots of nerves evident; anther appendages with entire margin  
*L. santosii*
1. Leaves mostly 7-10 mm wide, obtuse; undersurface densely covered with slender contorted wiry hairs which completely cover the nerves, glandular dots of leaves obscure or lacking; anther appendages minutely crenulate distally . 2
2. Heads each on a distinct peduncle; achenes sparsely pubescent; apical cells of some pappus setae with rounded tips  
*L. duartei*
2. Heads usually in pairs or in small clusters terminating branches of the inflorescence; achenes densely pubescent; apical cells of pappus setae with acute tips . . . . . 3
3. Mature achenes ca. 2 mm long, bearing numerous setae on lateral surfaces; corollas with slender hairs near tips of lobes  
*L. blanchetii*
3. Mature achenes ca. 3 mm long, densely covered with glands on lateral surfaces, without evident non-glandular setae; corollas without slender hairs on lobes  
*L. morii*

**LASIOLAENA MORII** R. M. King and H. Robinson, sp. nov.

Plantae fruticosae 1.0-1.5 m altae ascendenter ramosae. Caules obscure angulati superne dense tomentosi. Folia spiraliter inserta, petiolis 6-7 mm longis leniter demarcatis; laminae late obovatae 17-25 mm longae et 10-15 mm latae base anguste acuminatae margine superne pauca serrulatae apice breviter obtusae vel rotundatae supra evanescentiter tomentellae non glandulopunctatae subtus dense albo-tomentosae, nervis secundarius paucis valde ascendentibus. Inflorescentiae in ramis terminales dense corymbosae, ramis brevibus dense tomentosis. Capitula 2-4 sessilia in binis vel glomerulis congesta ca. 9 mm alta et 7 mm lata; squamae involucris 20-25 leniter subimbricatae 2-3-seriatae lanceolatae vel anguste lanceolatae 4-7 mm longae ad 1.5 mm latae superne purpurascens apice breviter anguste acuminatae extus dense hyaline glandulopunctatae et albo-tomentosae; receptacula distincte conica hirsuta. Flores 12-18 in capitulo; corollae lavandulae vel violaceae ca. 5 mm longae in faucibus et lobis sparse glandulopunctatae, tubis ca. 1.7 mm longis, lobis ca. 0.8 mm longis et 0.6 mm latis; thecae antherarum ca. 1.7 mm longae; appendices antherarum maturae oblongae ca. 0.5 mm longae et 0.35 mm latae deciduae margine distaliter leniter crenulatae. Achaenia ca. 3 mm longa dense breviter glandulifera, setis non glanduliferis raris vel nullis; setae pappi 35-40 plerumque 3.0-4.5 mm



longae, cellulis apicalibus argute acutis non deformibus. Grana pollinis ca. 25  $\mu$ m in diam.

TYPE: BRASIL: Bahia: Município de Rio de Contas. Pico das Almas, a 18 kms ao NW de Rio de Contas. Elev. 1600-1850 m. flowers pink. 22 July 1979. *R.M.King, S.Mori, T.S.dos Santos & J.Hage 8770* (Holotype RB; isotypes CEPEC, US). PARATYPES: BRASIL: Bahia: Município de Mucugê, a 3 km ao S de Mucugê. Na estrada que vai par Jussiape. Elev. ca. 1000 m. Uncommon shrubs 1½ meters tall, flowers lavender. *R.M.King, S.Mori, T.S.dos Santos & J.Hage 8757* (CEPEC, US); Município de Mucugê. Estrada que liga Mucugê cam Andaraí a 11 kms de primeiro. Elev. 1150 m. Shrub one meter tall, flowers pink, mostly in bud. 27 July 1979. *R.M.King, S.Mori, T.S.dos Santos & J.Hage 8771* (CEPEC, US).

The species is most distinctive in the larger size of the flower parts and the densely glanduliferous achenes which lack setae. The number of flowers in the head is less than any other species of the genus, but the number of setae in the pappus is greater. The apical cells of the pappus setae are unmodified, while those of the longer setae in *L. blanchetii* are congested and obtuse. In *L. duartei* the longer pappus setae have apical cells that are often enlarged with rounded ends. The number of flowers in the heads of the new species are not quite as variable as the cited span of numbers implies. The type and *King 8771* tend to have 18 flowers in the head while *King 8757* tends to have 12.

The anther appendages of the type specimen have proved so fragile that none could be prepared intact. Inspection of the less mature paratypes showed their appendages were not fragile but were shorter. Under the compound microscope a zone of tissue is seen that may represent an area of persisting intercalary growth at the base of the appendage which may add to the length of the appendage as the flower matures. Ultimately, at full maturity, the zone appears to wither allowing the appendage to dehisce. Such fragile appendages have not been noticed in other species of the Asteraceae.

LASIOLAENA SANTOSII R. M. King and H. Robinson, sp. nov.

Plantae fruticosae ad 1 m altae ascendentiter interdum fasciculate ramosae. Caules leniter angulati et striati dense flaccide tomentosi. Folia spiraliter inserta, petiolis ca. 7 mm longis leniter demarcatis; laminae anguste obovatae ca. 15-20 mm longae et 5-6 mm latae base anguste acuminatae margine superne multo minute serrulatae apice breviter acutae supra glandulopunctatae et dense minute puberulae subtus plerumque in areolis flaccide tomentosae in nervis et nervulis glandulopunctatis, nervis secundariis numerosis valde ascendentibus, anastomosis densis. Inflorescentiae in ramis terminales pauci-capitatae subumbellatae, ramis ca. 10-15 mm longis dense tomentellis. Capitula in ramis solitaria late campanulata ca. 6 mm alta et plerumque 6-8 mm lata; squamae involucri 30-40 leniter subimbri-



catae 2-3-seriatae lineari-lanceolatae 3-5 mm longae ad 1 mm latae superne purpurascences apice anguste acutae herbaceae extus glandulo-punctatae et flaccide tomentellae; receptacula distincte conica sparse puberula. Flores 45-65 in capitulo; corollae lavandulae ca. 4 mm longae in faucibus et lobis sparse glandulo-punctatae, tubis ca. 1.3 mm longis, lobis 0.8-0.9 mm longis et 0.5 mm latis; thecae antherarum ca. 1 mm longae; appendices antherarum quadratae ca. 0.25 mm longae et latae margine integrae. Achaenia ca. 2 mm longa dense breviter setifera et glandulifera; setae pappi 25-27 plerumque 2.5-3.5 mm longae superne saepe purpurascences, cellulis apicalibus argute acutis non deformibus. Grana pollinis ca. 23  $\mu$ m in diam.

TYPE: BRASIL: Bahia: Município de Rio de Contas. Pico das Almas, a 18 kms NW de Rio de Contas. Elev. 1600-1850 m. Shrub one meter tall, flowers pink. 24 July 1979. R.M.King, S.Mori, T.S.dos Santos & J.Hage 8138 (Holotype RB; isotypes CEPEC, US).

*Lasiolaena santosii* is notable for the distinctive form of tomentum which consists of flaccid thin-walled hairs. The hairs are collapsed when dry and they are often matted into small plate-like sheets. The other three species of the genus all have a denser tomentum of contorted, slender, firm-walled cells. The comparatively thin tomentum covers the undersurface of the leaves unevenly and the darker glanduliferous veins can be seen. The upper surface of the leaves also has glandular-punctations, a feature not evident in the other species. The leaves of *L. santosii* are also distinctive in their sharper apices and the fine serrulation of the upper margin.

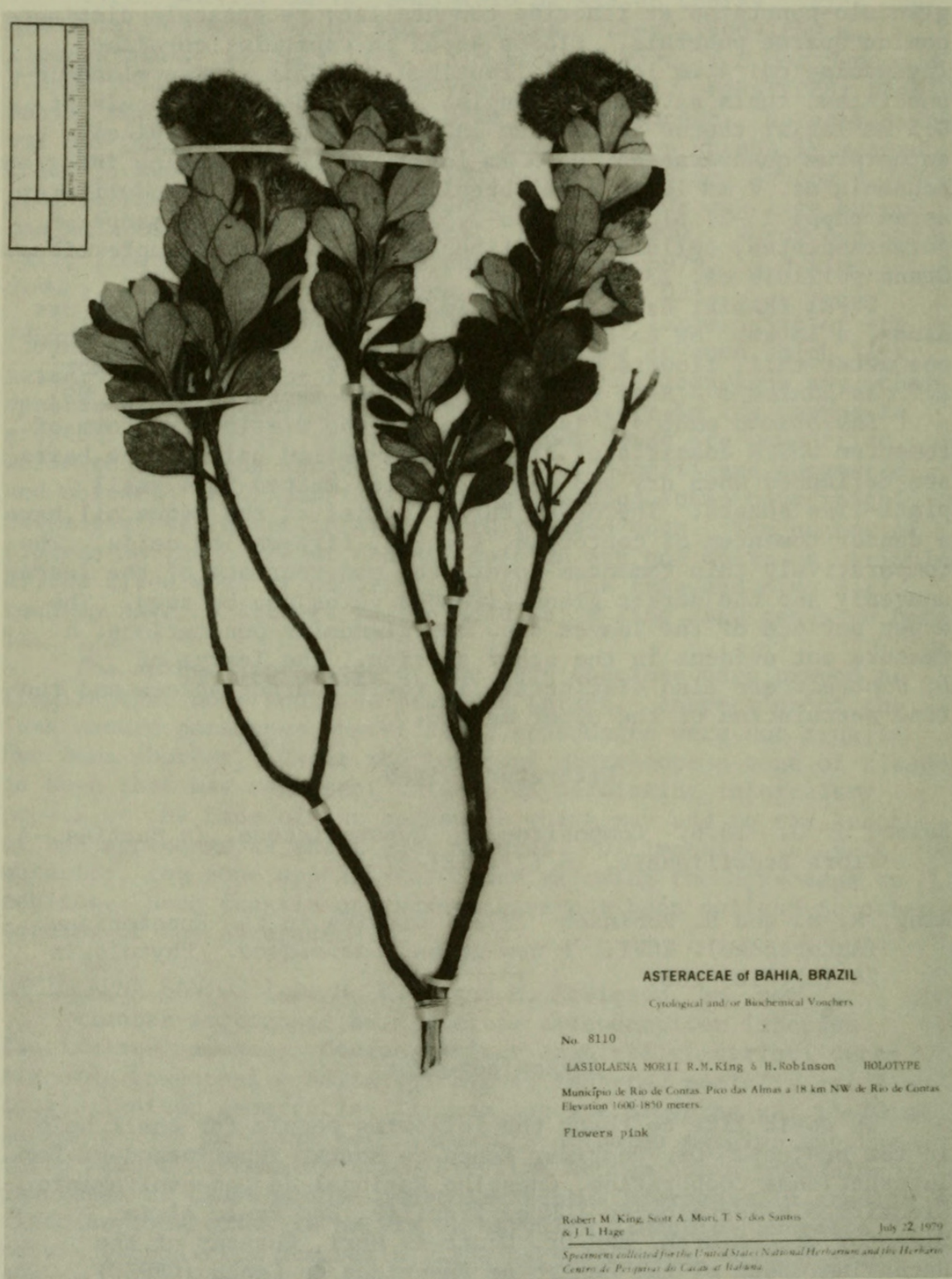
#### Literature Cited

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- King, R. M. and H. Robinson 1972. Studies in the Eupatorieae (Asteraceae). XCVI. A new genus, *Lasiolaena*. Phytologia 24 (3): 185-186.

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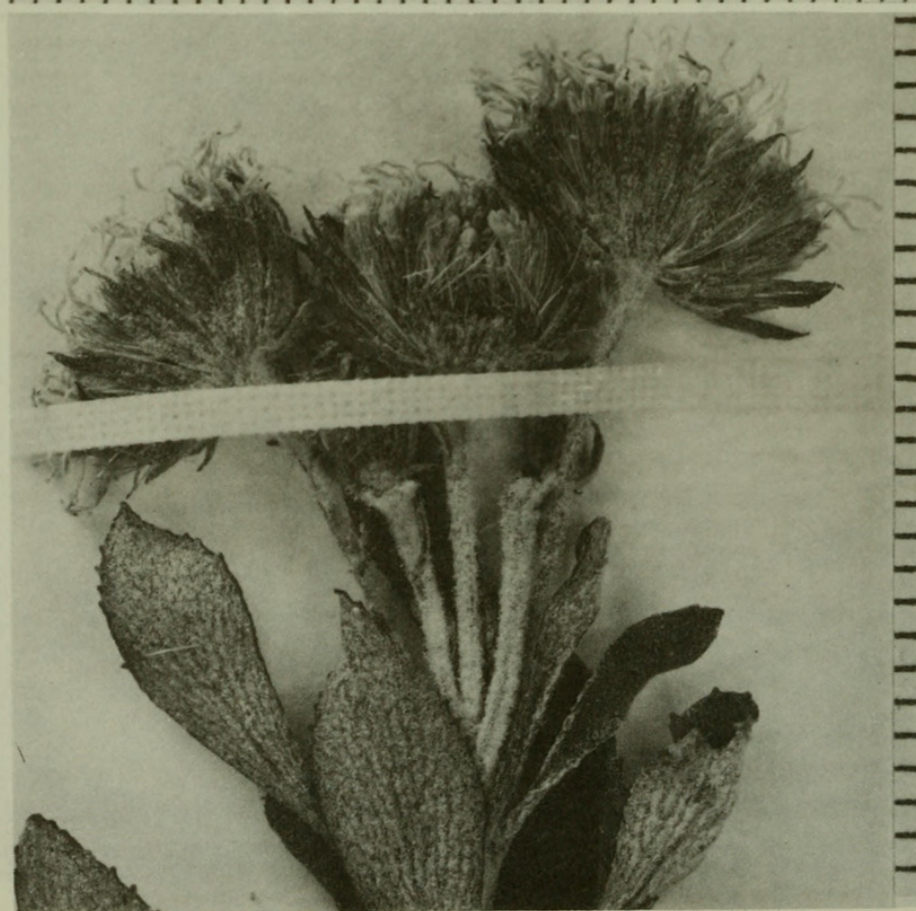
*Lasiolaena morii* R. M. King & H. Robinson, Holotype,  
Jardim Botânico, Rio de Janeiro. Photos by Victor E. Krantz,  
Staff Photographer, National Museum of Natural History.





*Lasiolaena santosii* R. M. King & H. Robinson, Holotype,  
Jardim Botânico, Rio de Janeiro.





*Lasiolaena* enlargements of leaves and heads. Top. *L. morii*. Bottom. *L. santosii*.



King, Robert Merrill and Robinson, Harold Ernest. 1979. "STUDIES IN THE EUPATORIEAE ASTERACEAE 185. ADDITIONS TO THE GENUS LASIOLAENA." *Phytologia* 44, 466–472.

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