

COLOMBIAN SPECIES OF *SPIGELIA*

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No recent systematic treatment of the Colombian species of *Spigelia* (Loganiaceae) exists. Two species were described in 1818 from New Granada (Colombia) by Humboldt, Bonpland and Kunth¹. The Panama Canal Zone species have been enumerated by Standley². R. Knuth has listed the Venezuelan species³. *Spigelia anthelmia* L. has been reported from the Dutch West Indian islands of Curaçao, Aruba, and Bonaire, adjacent to Venezuela, by Boldingh⁴. *Spigelia pedunculata* R. & S. has been reported from Ecuador by William Jameson⁵.

Material has been studied from the herbaria of the United States National Arboretum (USNA), the Missouri Botanical Garden (MO), and the Academy of Natural Sciences, Philadelphia (PH), but by far the largest series of specimens from Colombia is to be found in the United States National Herbarium (US). It is a pleasure to acknowledge my thanks to the curators of these herbaria for their courtesies. Where the designation of herbarium of deposit is significant, the abbreviations indicated above, codified in Index Herbariorum, have been used. Special thanks are due Ellsworth P. Killip, Curator of Plants, U. S. National Museum, for his assistance and encouragement.

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- 1.—Nov. Gen. et Sp. 3: 185. 1819. [Date *vide* J. H. Barnhart, Bull. Torrey Bot. Club 29: 585 1902].
 - 2.—Contr. U. S. Nat. Herb. 27: 302-303. 1928.
 - 3.—Initia Florae Venezuelensis 563-564. 1927.
 - 4.—Flora of Dutch West Indian Islands 2: 85. 1914.
 - 5.—Syn. Fl. Aequator. 2: 241. 1865.

Key to the Colombian *Spigelias*.

Low annuals, 7-12 cm. high; blades of principal leaves only 20-28 mm. long, lance-oblong, 5-6 mm. wide; flowers solitary or few and spicate..... 1. *S. humilis*.

Taller annuals or short-lived perennials; flowers several, in spikes.

Corollas rather showy, 25-35 mm. long, livid rose-violet or pink; leaves glabrous; seeds 3-4 mm. long.

Stamens distinctly exerted; fruiting spikes strongly decurved; capsule smooth 2. *S. Humboldtiana*.

Stamens scarcely exerted; fruiting spikes spreading, not decurved; capsule finely echinate 3. *S. pedunculata*.

Corollas not at all showy, smaller, less than 25 mm. long; seeds 1-3 mm. long.

Leaf blades narrowly lanceolate, 8-12 cm. long; perennial, from a stout creeping rootstock; capsule smooth; corollas white .. 4. *S. persicarioides*.

Leaf blades ovate or obovate, or if lanceolate less than 8 cm. long; annuals or short-lived perennials, at most occasionally rooting at the nodes; capsule echinate or muricate.

Corollas pink or violet; leaves wholly glabrous.

Spikes chiefly solitary; leaves thin, the blades rounded or obtuse at the base; styles persistent, conspicuous, 5-7 mm. long 5. *S. filipes*.

Spikes 3-4; leaves firm, blades acute at the base; styles early deciduous, inconspicuous 6. *S. Gilgii*.

Corollas white or straw-colored; leaf-blades puberulent along the veins beneath.

Upper leaves subsessile, congested in a false whorl beneath the spikes; low annual, with stems naked below; widespread species 7. *S. anthelmia*.

Upper leaves distinctly petiolate, not simply congested nor conspicuously verticillate; tall leafy annuals or perennials; infrequent species.

Petioles 1/4 to 1/3 as long as the leaf blades; corolla 8-10 mm. long, the lobes lanceolate, narrow; stamens included 8. *S. hamelioides*.

Petioles only 1/8 as long as the leaf blades; corolla 11-12 mm. long, the lobes broadly deltoid; stamens barely exerted... 9. *S. Killipii*.

1. ***Spigelia humilis*** Benth. in Hook. Jour. Bot. 3: 240. 1840.

Low, inconspicuous annual, 7-12 cm. high, arising from a cluster of thin fibrous roots, the stems slender, simple or branching from the

base, distinctly quadrangular with faint wings on the angles, puberulent to subglabrous; leaf blades lanceolate to oblanceolate or lance-oblong, spreading, in strictly opposite more or less decussate pairs, all small, those of principal leaves 20-28 mm. long, 5-6 mm. wide, a little fleshy, glabrous on both surfaces, subsessile; flowers solitary or in reduced 2- or 3-flowered spikes, inconspicuous, the calyx lobes subulate, subequal, glabrous, 1.5-2.0 mm. long, spreading or recurved in fruit, the corolla white, narrow-salverform, 15-18 mm. long, the lobes short-triangular, barely acute, more or less imbricate; stamens included; capsule smooth, the cocci rounded, 2.0-2.5 mm. long; immature seeds 0.5 mm. long, minutely echinate.

Type from Río Essequibo, British Guiana, *Schomburgk 20*. Paratype from Río Quitaro, British Guiana, *Schomburgk 536* (US). Richard Schomburgk (Reisen in Britisch-Guiana 3: 949. 1848) records this species from "an den Ufern des *Essequibo* und *Rupununi*. Blüht vom October bis December. Einjähriges Kraut."

Specimens examined: Colombia: Intend. Chocó: Río Tutunendo, east of Quibdó, *Archer 2186*.

2. *Spigelia Humboldtiana* C. & S., *Linnaea* 1: 200. 1826.

Tall, branching, shrub-like herb 60-120 cm. high, arising from a stout cluster of roots, the stems slender, repeatedly forking, glabrous and glaucous, hollow but woody, terete; leaves thin, the blades ovate, or lance-ovate, acuminate to cuspidate, 10-13 cm. long, 3.5-5.5 cm. wide, glabrous above, subglabrous or puberulent beneath, usually strongly nerved, short-petiolate, the petioles 5-10 mm. long, grooved; spikes 1-3, in all the upper axils, early recurving so as to assume a deflexed position in late fruiting condition, secund or subsecund, generally rather closely 5- to 9-flowered for the distal 2/3 to 3/4 of their length; flowers more or less showy, the calyx-lobes very unequal, four lance-subulate, 4.5-5.5 mm. long, the fifth shorter, broader, ovate, only a little divergent in fruit, the corolla deep rich pink or red, 25-27 mm. long, the lobes long-acuminate, about 5 mm. long, inrolled (not reflexed) upon withering; stamens distinctly exerted; capsule glabrous or only a little roughened on the summit, the cocci oblong or subspherical, large, 6-7 mm. long; seeds trigonous, low-rounded on the back, 3.0-3.5 mm. long, scrobiculate, coffee-brown.

Type from Cumaná, State of Sucre, Venezuela, year 1799, *Humboldt & Bonpland 174* (Herb. Willd. 3552).

Colombia: Dept. Santander: California, 2200 meters, *Killip & Smith 17099*. Dept. Caldas: Salento, *Pennell 8871*. Dept. Antioquia: Medellín, *Archer 1577*.

3. ***Spigelia pedunculata*** H. B. K., Nov. Gen. et Sp. 3: 185. 1819.

Stout leafy herb, 0.5-1.5 m. high, arising from several stout but shallow roots, the stems usually quadrangular, now simple now freely branching chiefly in the upper part, robust, hollow but woody; leaves firm, subcoriaceous, the blades ovate, acute, to lanceolate, acuminate, strongly nerved, 8-14 cm. long, the upper 5-6 cm. wide, glabrous on both surfaces, or occasionally finely crisp-pubescent on margin, a little paler beneath, petioles short, 4-7 mm. long, more or less channeled, shortly expanded at base, the interpetiolar membrane prominent, broadly triangular, ciliolate; spikes solitary and terminal, or less often 2 or 3 or axillary, strictly secund, ascending, usually closely 10- to 18-flowered for the distal 1/3 to 1/2 of their length; flowers rather showy, the calyx-lobes lance-acuminate, subequal, puberulent and ciliolate, 6-7 mm. long stiffly spreading in fruit, the corolla livid rose-violet or pink, 25-35 mm. long, the lobes ovate, acute, shortly cuspidate, involute in age; stamens barely exerted; capsule finely echinate at the summit, glabrous below, the cocci 7-8 mm. long; seeds ovoid or trigonous, rounded on the back, large, 4 mm. long, scrobiculate, dull dark-brown.

Type from El Moral, above Ibagué, Dept. Tolima, Colombia, Sept. 1801, *Humboldt & Bonpland* (photo, US).

Specimen examined:

Colombia: Dept. Valle del Cauca; Cartago, Cord. Central, 3 Dec. 1918, *M. T. Dawe*. Dept. Caldas: Pinares above Salento, *Pennell 9192*. Dept. Cauca: Paispamba, above Popayán, 2000-2500 m., *Lehmann 7847*; Bei Popayán und am Sotará, 1800-3000 m., ["a small weed-like plant with reddish flowers, from Paispamba", *Lehmann's Field Notes*]. *Lehmann 2800*. Dept. Nariño: Pasto, *Archer 23*, IV, 1935. Com. Putumayo: Sibundoy, *Archer 3419*; San Francisco de Sibundoy, *Archer 3426*, *Cuatrecasas 11549*. Borders of Dept. Valle del Cauca and Intend. Chocó: Cordillera Occidental, *Dugand & Jaramillo 3059*.

Ecuador: Prov. Pichincha: Corazón, *André K527*. Prov. Oro: Portovelo, 1200 m. *Rose 23404*.

In Nariño and Putumayo this species, known as "guambia" or "guamuco", is said to be highly poisonous, especially the fruits. Some

persons suffer severe poisoning from simply handling the plant, and there, as elsewhere, the plant is used for the killing of dogs.

4. *Spigelia persicarioides* Ewan, sp. nov.

Herba perennis gracilis erecta, e radice tenui elongata lignosa, caulibus robustis simplicibus vel saepe dichotomis, teretibus vel subquadrangularibus puberulis; foliis persistentibus decussatis, internodis brevibus 2.5-4.0 cm. longis, laminis lanceolatis acuminatis, 8-12 cm. longis, supra glabris, subtus subglabris (costa et nervis utraque pagina puberulis exceptis), breviter petiolatis, petiolis 4-10 mm. longis; spicis axillaribus et terminalibus, erectis vel suberectis, pedunculatis, 7-10-floribus; floribus angustis gracilibus, lobis calycis subaequalibus subulatis 2-3 mm. longis vix involutis glabris, corollis albidis vel extus pallido-viridibus, intus albidis, tubo supra medium infundibuliformi, 18-21 mm. longis, lobis erectis deltoideis planis; staminibus inclusis; capsulis laevibus, cocci globosis, 3 mm. longis; seminibus immaturis ovatis compressis subglabris.

Slender, erect, perennial herb, arising from elongated creeping root-stock, the stems stout, simple or forking, terete or subquadrangular, puberulent; leaves persisting, decussate, the internodes short, 2.5-4.0 cm. long, the blades lanceolate, acuminate, 8-12 cm. long, glabrous above, subglabrous beneath, puberulent along the nerves, short-petiolate, the petioles 4-10 mm. long; spikes both axillary and terminal, erect or ascending, pedunculate, 7- to 10-flowered for distal 1/2 of their length; flowers slender, narrow, the calyx lobes subequal, subulate, 2-3 mm. long, more or less involute, glabrous, the corolla white or greenish-white exteriorly, white within, funnellform expanded for distal half, narrow tubular below, 18-21 mm. long, the lobes erect, deltoid, plane; stamens included; capsule smooth, the cocci globose, 3 mm. long; immature seeds ovate, flattened, nearly smooth.

Type in the U. S. National Herbarium, No. 1852840, collected in lowland rain forest of Río Cajambre, along the Pacific Coast, Dept. Valle del Cauca, Colombia, alt. 5-80 meters, 5-15 May, 1944, by *J. Cuatrecasas* (No. 17559).

Another specimen, collected at same time and place, *Cuatrecasas 17561*, has a more repent habit, shorter leaves and fewer flowers; it is an evident ecologic variant of more moist ground.

***Spigelia persicarioides* var. *insularis* Ewan, var. nov.**

A var. *typica* spica solitaria terminali differt; capsulis echinatis. Spikes only terminal; capsule echinate with broad ovate scales.

Type in the U. S. National Herbarium, No. 1170097, collected along bank of small stream in dense forest, on south end of Gorgona Island, Dept. Nariño, Colombia, alt. about sea level, February 9, 1939, by *E. P. Killip & H. Garcia-Barriga* (No. 33105).

This collection, in fruit only, has the distinctive leaves of *S. persicarioides* but lacks the axillary spikes. No *Spigelia* is recorded from Gorgona Island by Bentham in the "Botany of Voyage of the Sulphur".

5. ***Spigelia filipes* Rusby. Descr. S. Amer. Pl. 81. 1920.**

Annual or short-lived perennial, arising from cluster of shallow fibrous roots; the stems slender, rather lax or reclining, weakly quadrangular, glabrous throughout, the internodes often long; leaves early deciduous, the blades ovate to ovate-lanceolate, acute to acuminate, rounded or obtuse at the base, 7-12 cm. long, 2.5-4.5 cm. wide, thin, glabrous and glaucous above, glabrous beneath except for puberulence along veins toward the base, the petioles 5-10 mm. long or those of uppermost leaves 1-3 mm. long; spikes chiefly solitary, erect, elongate, as much as 12-15 cm. long, loosely 18- to 25-flowered for 3/4 of their length; flowers slender, very narrow, the calyx lobes subequal, 1-3 mm. long, erect, glabrous, the corolla light-red or violet, long and evenly funnellform or slightly dilated about 1/3 below the summit, 11-16 mm. long, the lobes erect, triangular, a little revolute; stamens included; persistent styles conspicuous, erect, 5-7 mm. long; capsule echinate with thin scales, the cocci obovoid, 3.5-4.0 mm. long; seed obovoid, flattened, 2 mm. long, ruddy brown, echinulate.

Type from Eleanor Creek, lower Orinoco River, State of Bolívar, Venezuela, *H. H. Rusby & Roy W. Squires 145* (isotype, US).

Colombia: Río Guayabero, Com. Vaupés, alt. 240 meters, *Cuatro-casas 7523*.

6. ***Spigelia Gilgii* Macbr., Candollea 6: 18. 1934.**

Spigelia nervosa Gilg, Bot. Jahrb. Engl. 25: 722. 1898, non Steud., 1843.

Stout annual or tall, branching short-lived perennial, arising from a cluster of woody-fibrous, shallow roots; stems subquadrangu-

lar, stout, branching above, puberulent, strongly so above; leaves persisting, the blades lance-ovate, acuminate or simply acute, 8-15 cm. long, 2.5-4.5 or 6.0 cm. wide, glabrous on both surfaces, narrowed to a short petiole 3-5 mm. long; spikes 3-4, elongated, 12-20 cm. long, secund, loosely 20- to 30-flowered for nearly their entire length, flowers slender, the calyx lobes subequal, subulate, 3-4 mm. long, erect or recurved at tips, glabrous, the corolla pink or lilac, the lobes deltoid, erect; stamens included; capsule muricate, the cocci ovoid, 4.0-4.5 mm. long; seeds ovate, low-rounded on the back, 2 mm. long, muriculate, dark coffee-brown.

Type from "Silvis subandinis subtropicis", Ecuador, Sept. 1893, *Sodi*ro 108/3. (photograph, US).

To be expected in Río Putumayo watershed. Macbride's name constitutes a simple renaming of Gilg's *S. nervosa*, a homonym.

Specimens examined:

Perú: Dept. Loreto: Soledad, on Río Itaya, alt. 110 meters, *Killip & Smith* 29600. Gamitanacocha, Río Mazán, alt. 100-125 meters, *Schunke* 308.

7. ***Spigelia anthelmia*** L. Sp. Pl. 149. 1753.

S. nervosa Steud., Flora 26: 764. 1843.

(Type: *Hostmann & Kappler* 505, "in subhumidis umbrosis" [Surinam]. 1842. Isotype (MO) studied).

Slender annual, 15-45 or 60 cm. high, arising from a cluster of shallow roots, the stems most often simple or irregularly few-branched, the branches nearly leafless, floriferous at tips, all rather succulent, weak, glabrous, occasionally glaucous, reduced and early deciduous below, the two uppermost pairs so closely approximate as to appear verticillate, thin, recalling *Trientalis*, subtending the inflorescence, the blades varying from broadly rhomboid-ovate to narrowly lanceolate, acuminate, scabrellous on upper surface, glabrous beneath except for scattered, crisp-hyaline hairs on the veins toward the sessile base; spikes 1-several, usually 3, simple or branching, erect or ascending, generally rather uniformly 15- to 30-flowered from the base; flowers early shrivelling and inconspicuous, the calyx lobes lance-acuminate, subequal, 2 mm. long, very narrowly hyaline-margined; corolla pale straw-colored, purplish toward the tip, 5-8 mm. long, the lobes low-triangular, early reflexed; stamens included; capsule finely echinate above the base, the cocci 3-4 mm. long; seeds

ovate, low-rounded on back, about 1 mm. long, tessellate, chestnut-brown.

Type from Cayenne, *Plumier*.

Specimens examined:

Colombia: Dept. Santander: Barranca Bermeja, 100-500 m., *Haught 1408*. Dept. Bolívar: Tierrabomba Island, Cartagena Bay, *Killip & Smith 14146*. Dept. Antioquia: Puerto Berrío, Magdalena Valley, *Archer 860*; Medellín, *R. A. Toro 321*. Dept. Valle del Cauca: Buenaventura, *Killip & Cuatrecasas 38995*.

Linnaeus wrote the binomial *Spigelia Anthelmia*, using the initial capital letter, indicating its early use as a substantive during the seventeenth century. A second prelinnaean name for the plant was "Arapabaca" and this plays a part in the history of the species. Linnaeus based *Spigelia Anthelmia* on three references: (1) Plumier's citation "Arapabaca quadrifolia, fructu testiculato"⁶, (2) Pierre Barrère's reference to the plant in a little-known work on the natural history of French Guiana⁷, and (3) Georg Marcgrav's "Arapabaca brasiliensibus dicta planta" —the designation for the plant in his classical work on the natural history of Brazil⁸. The Plumier reference though brief is unmistakable. Barrère's *Essai sur l'histoire naturelle* consists of an alphabetical arrangement of natural history subjects on "animals and minerals", "poisons", "turtles", "insects", and part one, the largest section of the book, on "plants". *Spigelia anthelmia* is there listed under the name "Arapabaca quadrifolia, fructu testiculato", the name credited therein to Plumier, followed by the same Marcgrav reference, but without comment on the uses or occurrence of the plant in French Guiana. This is the more remarkable since Barrère was one-time medical botanist to the King of France in the Isle of Cayenne. Marcgrav described the plant as known in Brazil very well and illustrated it with a line cut which, though crude, leaves no doubt as to the identity of his plant with *Spigelia anthelmia* of Linnaeus. Marcgrav's cut is the first illustration of the species and, in fact, of the genus.

The first illustration of *Spigelia anthelmia* L. after the publication of the binomial by Linnaeus was that accompanying an essay

6.—Nova pl. Amer. gen. 2: 31. 1703.

7.—Essai sur l'histoire naturelle... 15. 1741. [I have not seen the first ed. (1741) which, *vide* Cat. Lib. Brit. Mus. (Nat. Hist.), differs from second ed. (1749) only in the title page.]

8.—Hist. Nat. Brasil. 34-35, with line cut. 1648

on its pharmaceutical properties written by J. G. Colliander, a pupil of Linnaeus, and published in his *Amoenitates Academicæ*⁹. Plate six of that work illustrates the plant as known from Jamaica, where it was called "woormgras". Linnaeus very probably borrowed the specific name from Patrick Browne, who used the phrase-name "*Anthelmia quadrifolia, spicis terminalibus & e centro frondis*". Patrick Browne's illustration, along with that of Colliander, identifies the plant of Linnaeus with the prelinnaean Marcgrav reference, and with *Spigelia anthelmia* in the sense of most authors.

There are some growth forms of this species which may prove uncertain; they commonly represent individuals which proliferate after initial flowering has passed. The colored plate of *Spigelia anthelmia* in Curtis's *Botanical Magazine* (pl. 2359) is only fair, a rather unusual form chosen with small supplementary leaves present beneath the characteristic group of four terminal leaves.

Spigelia nervosa Steud. represents a small plant of *S. anthelmia* and is a good match for *H. H. Smith 576* from Colombia except for the somewhat more narrowly lanceolate stem leaves of the Colombian collection.

8. ***Spigelia hamelioides*** H. B. K., *Nov. Gen. et Sp.* 3: 185. 1819.

Erect annual, 30-60 cm. high, arising from shallow, thin, fibrous roots, the stems slender, simple or branching above, terete, puberulent to finely farinose; leaves early deciduous, the blades ovate or lanceolate, acuminate, 7-15 cm. long, 3-4 cm. wide, rather bullate, glabrous above, pruinose-puberulent beneath, especially along veins toward the base, strigose when young, all long-petiolate, the petioles slender, 10-22 mm. long; spikes 1 or 2, slender, more or less short-pedunculate, subsecund, rather densely 5- to 15-flowered for the distal 1/2 to 4/5 of their length; flowers inconspicuous, the calyx lobes subulate, subequal, 2.5-3.0 mm. long, glabrous, the corolla white or purplish white, narrow-funnelform, 8-10 mm. long, the lobes narrow-lanceolate, involute; stamens included; capsule heavily echinate at summit, the cocci obovoid, 3.0-3.5 mm.; seeds spheroidal, 1.5-2.0 mm., light russet-brown, muriculate.

Type from Guaduas, Magdalena River Valley, Dept. Cundinamarca, Colombia, 1801, *Humboldt & Bonpland* (photograph, US).

9.—*Amoen. Acad.* 5: 133-147. pl. 6. 1788.

Moist shaded slopes or mountain rain forests.

Specimens examined:

Colombia: Dept. Cundinamarca: 7 kilom. east of Hilo, valley of Quebrada Chiniata, *Ewan 15623* (USNA). Dept. Cauca: Miraflores, above Palmira, 1200-1600 m., *Pittier 881*. Intend. Chocó: La Concepción, 15 kilom. east of Quibdó, 75 m., *Archer 2011*.

Venezuela: State of Aragua: between El Portachuelo and Ocumare, *Pittier 11380*.

This *Spigelia* is perhaps the most problematical of the Colombian species owing to the difficulties attending the interpretation of the type photo. The type is fragmentary, lacking the lower stem and roots and is in flower only.

9. *Spigelia Killipii* Ewan, sp. nov.

Herba annua vel perennis 50-90 cm. alta, cualibus simplicibus ad apicem ramosis infra subglabris vel supra puberulis, dense glanduloso-hirsutulis pilis aureis, laminis foliorum omnium membranaceis ovatis acuminatis, majoribus 6-9 cm. longis vel inferioribus solum 3-4 cm. longis, foliis maturis supra viridibus glabris, subtus glaucis, costa puberula costis primariis prominentibus 6-7 jugis; petiolo brevi 5-10 mm. longo; spicis saepe ternatis erectis vel divaricatis, simplicibus vel ramosis, floribus saepius 7-12 secundis, pedunculis 18-25 mm. longis elongatis supra glabris basi glanduloso-puberulis; lobis calycis lineari-acicularibus 4-5 mm. longis inaequalibus basi glanduloso-hirsutulis supra ciliolatis, post anthesin valde divaricatis; corollis hypocrateriformibus candidis vel roseo-lacteis 11-12 mm. longis, lobis late triangularibus patentibus purpurascens; staminibus vix exsertis; capsulis valde echinatis coccis 4 mm. longis globosis; seminibus sublenticularibus vel hemisphaericis 1.2-1.5 mm. latis subnigris minute tuberculatis.

Slender annual or short-lived perennial, 50-90 cm. high; stems simple below, branching above, subglabrous or thinly puberulent below, densely glandular-hirsutulose above with golden hairs; leaf blades thin, ovate, abruptly acuminate, principal blades 6-9 cm. long, or the lower 3-4 cm. long, mature leaves green and glabrous above, or young leaves hirtellous toward the base, paler green, more or less glaucous beneath, strongly puberulent on the nerves, especially below, primary nerves 6-7 pairs, prominent; petioles short, 5-10 mm. long; spikes generally in 3's, erect or spreading, simple or 2- or 3-times

branched, spikes strictly secund, mostly 7 to 12-flowered for distal 2/3 of their length, peduncles 18-25 mm. long, elongating in fruit, glandular-puberulent below, glabrous or glabrescent above; calyx lobes linear-acicular, 4-5 mm. long, unequal, glandular-hirsutulose below, ciliolate above, widely spreading in fruit, corolla tube salverform, abruptly expanded above, 11-12 mm. long, white or in age yellowish with pinkish tinge, the lobes broadly triangular, shortly acuminate, spreading, purplish; stamens barely exerted; capsule rather densely echinate with sharp, prickle-like processes, the cocci 4 mm. long, rounded; seeds sublenticular or hemispherical, 1.2-1.5 mm. wide, nearly black, finely tuberculate.

Type in the U. S. National Herbarium, No. 1,771,863, collected in forest near junction of Río Condoto and Río San Juan, Intendencia del Chocó, Colombia, alt. 100-150 meters elevation, April 20, 1939, by E. P. Killip (No. 35101).

Other collections examined:

Colombia: Intend. Chocó: Istmina, 75 m., *García-Barriga 11191*.

Panamá: Juan Díaz, *Killip 3120*; Fort Sherman, *Standley 30960*; Río Tapia, Prov. Panamá, *Standley 28232*.

Spigelia Killipii is related to *S. hamelioides*, differing from that species by the characters enumerated in the key to the species. It is characteristically a tall plant, with rather stout stems, and though the corollas are not large as in *Spigelia Humboldtiana* and its allies they are rather conspicuous because of the broadly deltoid corolla lobes. It would appear from the collections studied to be a plant of the *tierra caliente* coasts.