

# Four new species of *Microlicia* (Melastomataceae) from Chapada Diamantina, Bahia, Brazil

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**Summary.** *Microlicia* D. Don (Melastomataceae) has about 120 species concentrated in central Brazil. During the inventory of Microlicieae of Mucugê, Chapada Diamantina, Bahia, Brazil we have found four new species of *Microlicia*, all endemic to Chapada Diamantina. *Microlicia hirta* Pataro & R. Romero is found in the Lençóis and Mucugê municipalities, while *M. intercalycina* Pataro & R. Romero, *M. macropetala* Pataro & R. Romero and *M. pulchra* Pataro & R. Romero are endemic to Mucugê. In *M. pulchra* the columella is persistent, a character described for the first time for the genus. The four new species are here described, discussed and illustrated. Conservation assessments based on IUCN criteria are also given.

**Resumo.** *Microlicia* D. Don (Melastomataceae) possui aproximadamente 120 espécies concentradas no Brasil central. Durante o levantamento florístico de Microlicieae em Mucugê, Chapada Diamantina, Bahia, Brasil, foram encontradas quatro novas espécies de *Microlicia*, todas endêmicas da Chapada Diamantina. *Microlicia hirta* Pataro & R. Romero ocorre em Lençóis e Mucugê, enquanto que *M. intercalycina* Pataro & R. Romero, *M. macropetala* Pataro & R. Romero e *M. pulchra* Pataro & R. Romero são endêmicas de Mucugê. *M. pulchra* apresenta columela persistente, característica descrita para o gênero pela primeira vez. As quatro espécies são descritas, discutidas e ilustradas. Os status de conservação baseado nos critérios da IUCN também são fornecidos.

**Key Words.** *campo rupestre*, endemism, IUCN Red List, Microlicieae.

## Introduction

*Microlicia* D. Don is the largest genus of Microlicieae (Melastomataceae), with about 120 species concentrated in *campo rupestre* from central Brazil, especially in Bahia, Goiás and Minas Gerais states (Romero 2003; Romero & Woodgyer 2012). The principal characters of the genus are the solitary flowers, with five petals, rarely with six petals, ovary usually with three locules, but with five in a few species, and capsule dehiscence always longitudinal from the apex to the base (Almeda & Martins 2001; Romero 2003).

The species of *Microlicia* from Bahia are restricted to Chapada Diamantina, a range of mountains in central Bahia, except for *Microlicia setosa* (Spreng.) DC., which is found also on the coastal zone of Bahia (Woodgyer 2005; Romero & Woodgyer 2012). Woodgyer (2005) established a total of 45 species of *Microlicia*. Later two species, initially described in *Chaetostoma*, were transferred to *Microlicia* by Koschnitzke & Martins (2007); *M. parvula* (Markgr.)

Koschn. & A. B. Martins and *M. semiriana* Koschn. & A. B. Martins. Woodgyer & Zappi (2009) described two new species, *M. flavovirens* and *M. contasensis*. During the inventory of Microlicieae from Mucugê, Bahia state, we have found four new species of *Microlicia*. Now there are 53 species of *Microlicia* known from Bahia.

***Microlicia hirta* Pataro & R. Romero sp. nov.** Type: Brazil, Bahia, Mucugê, Serra da Cascalheira, Pataro, Hurbath & Pontes 62 (holotype HUEFS!; isotypes ALCB!, HUFU!, US!).

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Branched shrub, 1.5 – 2 m tall. *Young branches* terete, brownish, becoming brownish cinereous with age, with an indumentum of sessile, spherical golden glands, glandular trichomes c. 0.2 mm long and long pale

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trichomes 1 – 2 mm long. *Leaves* ascending, chartaceous, concolourous, yellow-green, along all the branches, petiole c. 2 mm long; blade elliptic to slightly obovate, 16 – 18.5 × 8.5 – 9.5 mm, apex acute, margin crenulate, ciliate, base slightly attenuate, 3 (– 5)-nerved from base, both surfaces with an indumentum of sessile, spherical golden glands, glandular trichomes c. 0.2 mm long and pale trichomes c. 1 mm long. *Flowers* 5-merous, terminal; pedicel c. 0.5 mm long, yellowish green, with pale trichomes c. 1 mm long, sessile, spherical golden glands and glandular trichomes c. 0.2 mm long. *Hypanthium* 3 – 4 × 3 – 4 mm, green, campanulate, with sessile, spherical glands, glandular trichomes c. 0.2 mm long and sparse, pale trichomes c. 1 mm long; calyx lobes 6 – 6.5 × c. 1.5 mm, triangular-linear, green, apex acuminate with a terminal seta 0.5 – 1 mm long, margin entire, covered with glandular trichomes c. 0.2 mm long. *Petals* obovate, 11 – 12.5 × 5.5 – 7 mm, white, margin entire, glabrous, apex asymmetrically acute or asymmetrically acuminate. *Stamens* 10, dimorphic, yellow: larger stamens 5, filaments 4.5 – 5 mm long, thecae 2.5 – 3.5 mm long (including beak), ovate a oblong, polysporangiate, beak c. 0.5 mm long, connective prolonged 5 – 5.5 mm long, ventral appendage 1.5 – 2 mm long, truncate at the tip; smaller stamens 5, filaments 4 – 4.5 mm long, thecae 2 – 3 mm long (including beak), ovate to oblong, polysporangiate, beak c. 0.2 mm long, connective prolonged 1.5 – 2 mm long, ventral appendage c. 1 mm long, truncate at the tip. *Ovary* ovoid, superior, 2.5 – 3 × 1.5 – 2 mm, 3 or 5-locular, glabrous; style 7 – 8 mm long, terete, yellow, stigma punctiform. *Capsule* globose, 6 – 6.5 × c. 6 mm, brown, dehiscing into 3 valves from the apex. *Seeds* c. 0.7 × 0.4 mm, reniform, testa foveolate, pale brown. Fig. 1.

**RECOGNITION.** Related to *Microlicia baccharoides* Mart. ex Naudin but differs in having long, pale trichomes 1 – 2 mm long (vs short pale trichomes c. 0.5 mm long in *M. baccharoides*) and larger calyx lobes (6 – 6.5 mm long vs c. 2 mm long in *M. baccharoides*).

**DISTRIBUTION.** Lençóis and Mucugê, Chapada Diamantina, Bahia, Brazil.

**SPECIMENS EXAMINED. BRAZIL.** Bahia: Lençóis, Parque Nacional da Chapada Diamantina, 12°34'40"S, 41°25'56"W, 5 March 2005, fl. fr., *Conceição* 1222 (HUEFS); Mucugê, estrada Mucugê/Andaraí, c. 8 km de Mucugê, 12 Nov. 1998, fl. fr., *Oliveira* 29 (HUEFS); Parque Nacional Chapada Diamantina, Gerais do Rio Preto, proximidade da Toca do Gavião, 1230 m, 12°48'S, 41°27'W, 19 June 2005, fl. fr., *Conceição & Cardoso* 1390 (HUEFS); Mucugê, Serra da Cascalheira, c. 10 km ao N de Mucugê, na estrada para Andaraí, 12°56'23"S, 41°19'37"W, 1100 m, 10 Oct. 2010, fl., fr., *Pataro, Hurbath & Pontes* 62 (holotype HUEFS; isotypes ALCB, HUFU, US).

**HABITAT.** Sandy soil among rocks, in *campo rupestre*, c. 1100 m alt.

**CONSERVATION STATUS.** *Microlicia hirta* is known only from Serra da Cascalheira and Serra do Esbarrancado, in the vicinity of Mucugê, Bahia, Brazil, and should be considered Vulnerable (VU), criteria B1 a,b (iii) (IUCN 2001). These localities are very remote and seem not to be under any kind of human pressure.

**ETYMOLOGY.** The specific epithet refers to the long pale trichomes found on the branches.

**NOTES.** This species resembles *Microlicia baccharoides*, a species with a wide distribution across Chapada Diamantina, by having 3-nerved leaves, obovate and white petals, and yellow, dimorphic stamens. *M. hirta* differs in having long, pale trichomes 1 – 2 mm long (vs short pale trichomes c. 0.5 mm long), leaves 16 – 18.5 × 8.5 – 9.5 mm (vs 10 – 15 × 4 – 6 mm), calyx lobes 6 – 6.5 mm long (vs c. 2 mm long), petals 11 – 12.5 mm long (vs c. 10 mm long), and larger stamens with connective prolonged 5 – 5.5 mm long (vs 8.5 – 9 mm long). *M. hirta* also resembles *M. luetzelburgii* Markgr., a Bahian species. This species also has 3-nerved leaves, obovate and white petals, and yellow stamens, but *M. luetzelburgii* has ovate and sessile leaves 20 – 25 × 10 – 12 mm, a 3-locular ovary and a pedicel c. 2 mm long (Markgraf 1927).

*Microlicia hirta* also resembles *M. leucopetala* Wurdack, an endemic species from Bahia, by having 3-nerved, elliptic to obovate leaves and white petals. But *M. leucopetala* has leaves (7 –) 10 – 15 × (4 –) 6 – 8 mm, a 3-locular ovary, petals 8.5 – 10 mm long, and larger stamens with connective prolonged 3.3 – 4.5 mm long.

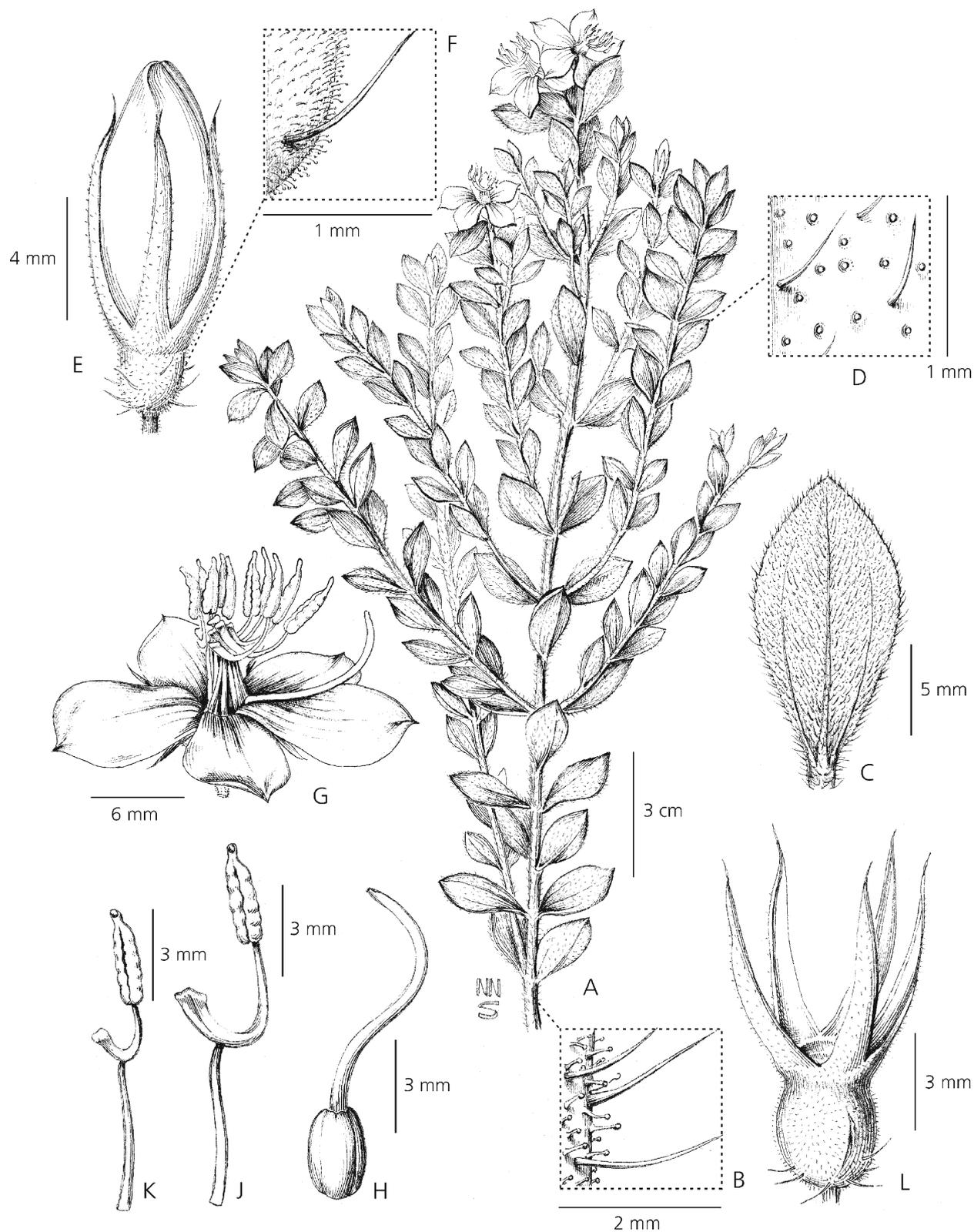
If using the multi-access key to the species of *Microlicia* in Bahia (Woodgyer 2005), the formula for *M. hirta* is: ADILOQUWaf

***Microlicia intercalycina* Pataro & R. Romero sp. nov.**

Type: Brazil, Bahia, Mucugê, Guiné, c. 30 km de Mucugê, *Pataro & Ogasawara* 48 (holotype HUEFS!; isotypes ALCB!, HUFU!, US!).

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Branched shrub from the base, 30 – 50 cm tall. *Young branches* quadrangular, green, becoming terete and brownish grey with age, glutinous, densely covered in sessile, spherical, golden glands, becoming glabrous with the age, leaf scars quite evident. *Leaves* ascending, chartaceous, green, concolourous, sessile or with short petiole to 0.5 mm long; blade elliptic, 5.5 – 7 × 1.5 – 2.5 mm, apex acute with an apical seta c. 0.3 mm long, margin serrate to crenate, ciliate, pale trichomes 0.3 – 0.6 mm long, base truncate, 1-nerved, both surfaces covered in sessile, spherical, golden glands. *Flowers* 5-merous, terminal, pedicel c. 0.5 mm long. *Hypanthium* 3 – 4 × 2.5 – 3.5 mm, yellow-green, oblong or



**Fig. 1.** *Microlicia hirta*. A habit; B stem detail (showing indumentum of glandular and pale trichomes); C leaf; D leaf detail (showing indumentum of sessile spherical golden glands and pale trichomes); E flower-bud; F flower-bud detail (showing indumentum of glandular and pale trichomes); G flower; H gynoecium; J large stamen; K small stamen; L fruit with hypanthium. From Pataro *et al.* 62. DRAWN BY NATANAEL NASCIMENTO.

campanulate, with sessile, golden glands; calyx lobes triangular, 2 – 2.5 × 1 – 1.5 mm, green, apex acute with a long seta 1 – 1.5 mm long, tinged red with age, margin entire, indument as hypanthium, with a pale trichome, sometimes two, c. 1 mm long, intercalated with the calyx lobes. *Petals* obovate, 8 – 8.5 × c. 5 mm, yellow-lime, apex acute or asymmetrically acuminate, margin entire, glabrous. *Stamens* 10, dimorphic: larger stamens 5, filaments 3 – 3.5 mm long, yellow, thecae 3 – 3.3 mm long (including beak), orange, oblong to ovate, polysporangiate, beak c. 0.5 mm long, connective prolonged 2 – 2.5 mm long, yellow, ventral appendage 0.7 – 1 mm long, yellow, bi-lobed or truncate at the tip; smaller stamens 5, filaments 2.5 – 3 mm long, yellow, thecae c. 2.5 mm (including beak), orange, oblong, polysporangiate, beak c. 0.3 mm long, connective prolonged 1 – 1.5 mm long, yellow, ventral appendage c. 0.5 mm long, 2-lobed or truncate at the tip. *Ovary* ovoid, 2 – 2.5 × 1 – 1.5 mm, superior, 3-locular, glabrous; style 7.5 – 8 mm long, terete, yellow, stigma punctiform. *Capsule* ovoid or elliptical, 4 – 5 × 3 – 4 mm, brownish, dehiscent into 3 valves from the apex. *Seeds* 0.3 – 0.5 × c. 0.2 mm, reniform, testa foveolate, pale brown. Fig. 2.

**RECOGNITION.** Related to *Microlicia longisepala* Wurdack but differs in having leaf blade elliptic, smaller (5.5 – 7 × 1.5 – 2.5 mm vs lanceolate leaves 10 – 14 × 5 – 8 mm in *M. longisepala*) and flowers with petals yellow-lime (vs flowers with petals pink in *M. longisepala*).

**DISTRIBUTION.** Endemic to Guiné, vicinity of Mucugê, Bahia, Brazil.

**SPECIMENS EXAMINED.** BRAZIL. Bahia: Mucugê, Base da Serra do Esbarrancado, 1200 m, 12°45'S, 41°30'W, 16 April 2005, fl. fr., *Conceição* 1344 (HUEFS); Mucugê, trilha do Guiné para a Serra do Esbarrancado, 12°44'20"S, 41°32'00"W, 13 March 2007, fl., fr., *Santos et al.* 1084 (HUEFS); Mucugê, Guiné, c. 30 km de Mucugê, 1000 m, 12°46'10"S, 41°31'58"W, 17 Aug. 2010, fl., fr., *Pataro & Ogasawara* 48 (holotype HUEFS; isotypes ALCB, HUFU, US).

**HABITAT.** Sandy soil, in *cerrado* (savanna); c. 1000 m alt.

**CONSERVATION STATUS.** Endangered (EN), Criteria B2 a,b (i,iii) (IUCN 2001). Despite a large population that occurs in Guiné, *Microlicia intercalycina* is known only from the type locality, in an area of tourism with a strong human impact.

**ETYMOLOGY.** The specific epithet refers to the characteristic trichomes intercalated with the calyx lobes.

**NOTES.** *Microlicia intercalycina* resembles *M. longisepala*, a Bahian species, by having an elliptic leaf blade, with a ciliate margin and an apex with a terminal seta. *M. longisepala* differs in having lanceolate leaves, 10 – 14 × 5 – 8 mm, with adaxial and abaxial surfaces and the hypanthium covered with pale trichomes, pink petals

and the connective of the larger stamens with the ventral appendage acute at the tip. *M. contasensis* Woodgyer & Zappi also has leaves with a ciliate margin and an apex with a terminal seta, filaments of the larger stamens 3.5 – 4.5 mm long and the connective with the ventral appendage bi-lobed at the tip. In *M. contasensis* the leaves are lanceolate, the branches are covered with sessile glands, trichomes are glandular and pale, the petals are pink or lilac and the style is 8.5 – 12 mm long. A few collections of *M. intercalycina* (*Santos et al.* 1084, HUEFS and *Pataro* 71, HUEFS) show two setae intercalated with the calyx lobes.

Of all species of *Microlicia* with yellow petals, only *M. intercalycina* has the following character set: leaf blade elliptic, with ciliate margin, pale trichomes 0.3 – 0.6 mm long, with a pale trichome, sometimes two, c. 1 mm long, intercalated with the calyx lobes.

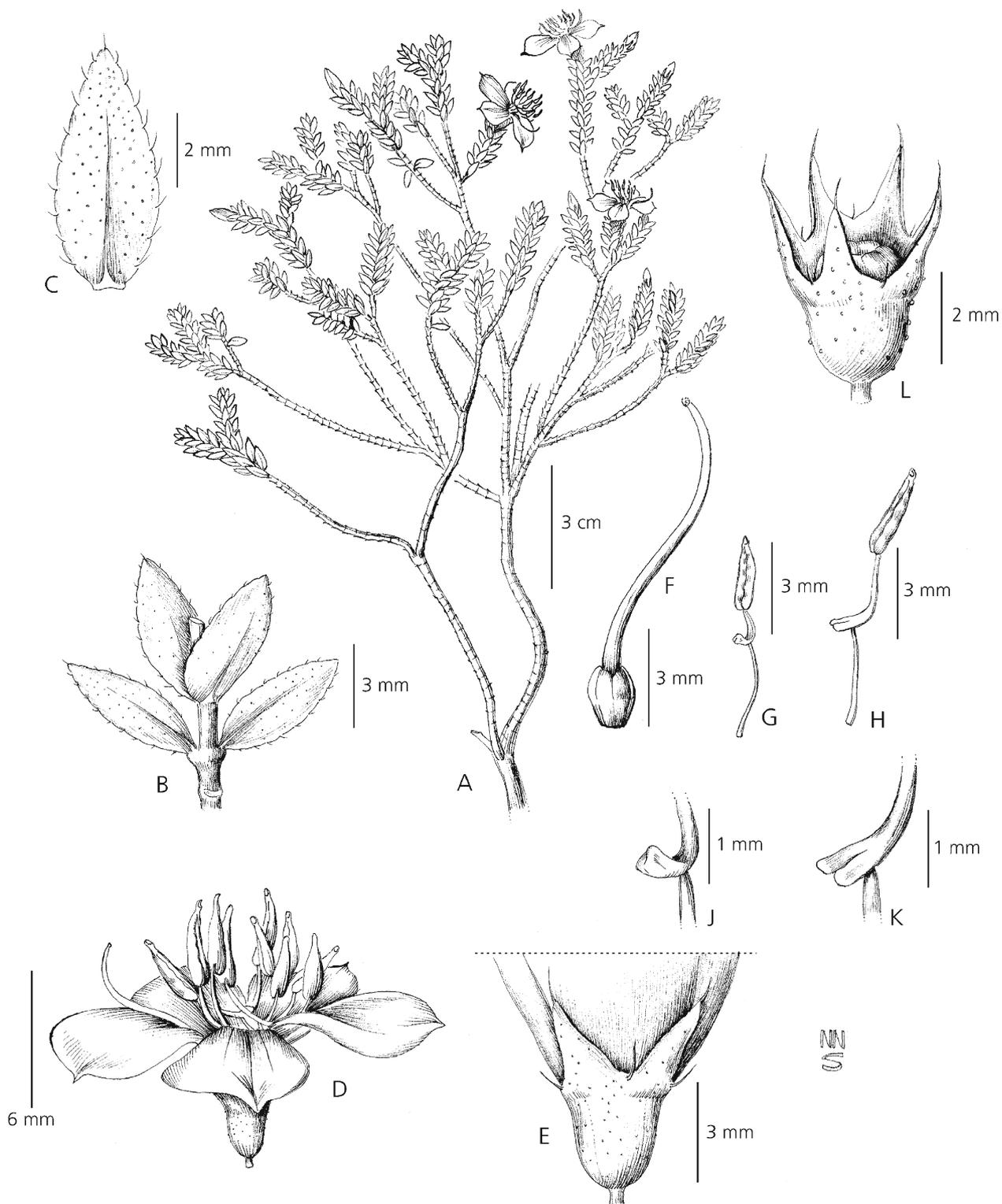
If using the multi-access key to the species of *Microlicia* from Bahia (Woodgyer 2005), the formula for *M. intercalycina* is: CDGJOQUVae

***Microlicia macropetala* Pataro & R. Romero sp. nov.**

Type: Brazil, Bahia, Mucugê, Serra do Esbarrancado, c. de 40 km de Mucugê, *Pataro, Ogasawara & Espírito-Santo* 49 (holotype HUEFS!; isotype ALCB!).

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Branched shrub, 1.5 – 2 m tall. *Young branches* quadrangular, yellow-green, becoming terete and brownish with age, glutinous, covered in sessile, spherical golden glands and with pale trichomes c. 0.5 mm long at the nodes, becoming glabrous with age, leaf scars quite evident. *Leaves* ascending, chartaceous, discolourous, concentrated at the apex, petiole 0.5 – 1 mm long; blade ovate to elliptic, 9 – 10 × 6 – 7 mm, apex acute, margin entire or inconspicuously crenulate, base truncate, 3-nerved, adaxial and abaxial surface with sessile, spherical golden glands. *Flowers* 5-merous, terminal; pedicel 0.5 – 1 mm long. *Hypanthium* 4.5 – 6 × 2.5 – 3.5 mm, green, terete, 10-nervate, with sessile golden glands; calyx lobes triangular 4.5 – 5 × 1.5 – 2.5 mm, green, apex acute, margin entire, with sessile golden glands. *Petals* obovate, 20 – 22.5 × 14 – 15.5 mm, pink, apex asymmetrically acuminate, margin entire, glabrous. *Stamens* 10, dimorphic: larger stamens 5: filaments 6.5 – 7 mm long, pink, thecae 4.5 – 5 mm long (including beak), ovate, polysporangiate, pink, beak c. 0.5 mm long, connective prolonged 6 – 7 mm long, pink, ventral appendage 2 – 2.5 mm long, yellow, acute or truncate at the tip; smaller stamens 5: filaments 5 – 6 mm long, pink,



**Fig. 2.** *Microlicia intercalycina*. A habit; B branch detail (showing leaves); C leaf; D flower; E hypanthium (showing trichomes intercalated with the calyx lobes); F gynoecium; G small stamen; H large stamen; J small stamen appendage (showing truncate appendage); K large stamen (showing bi-lobed appendage); L fruit with hypanthium. From *Pataro & Ogasawara* 48. DRAWN BY NATANAEL NASCIMENTO.

thecae 3.5 – 4 mm long (including beak), ovate to oblong, polysporangiate, yellow, beak c. 1 mm long, connective prolonged 2 – 2.5 mm long, pink, ventral appendage 1 – 2 mm long, yellow, truncate or truncate, rarely bi-lobed at the tip. *Ovary* pyriform, 3 – 4 × 2 – 3 mm, superior, 3-locular, glabrous; style 11 – 12.5 mm long, terete, pink, stigma punctiform. *Capsule* globose, 4 – 5 × 3 – 4 mm, brownish, glabrous, dehiscing into 3 valves from the apex, covered by persistent hypanthium and calyx lobes which gradually peel away as fruit matures. *Seeds* c. 1 × 0.5 mm long, reniform, testa foveolate, pale brown. Fig. 3.

**RECOGNITION.** Related to *Microlicia torrendii* Brade but differs in having 3-nerved leaves (vs 1-nerved in *M. torrendii*), larger calyx lobes (4.5 – 5 × 1.5 – 2.5 mm vs calyx lobes c. 1 × 1 mm in *M. torrendii*) and larger petals (20 – 22.5 × 14 – 15.5 mm vs 13 – 14 × 7 – 8 mm in *M. torrendii*).

**DISTRIBUTION.** Endemic to Serra do Esbarrancado, in the vicinity of Mucugê, Bahia, Brazil.

**SPECIMENS EXAMINED. BRAZIL.** Bahia: Mucugê, Serra do Esbarrancado, 1600 m, 12°44'S, 41°30'W, 24 Feb. 2005, fl. fr., *Conceição* 1177 (HUEFS); Mucugê, Serra do Esbarrancado, c. de 40 km de Mucugê, 1350 m, 12°46'11"S, 41°29'34"W, 17 Aug. 2010, fl., fr., *Patato, Ogasawara & Espírito-Santo* 49 (holotype HUEFS; isotype ALCB); Mucugê, Serra do Esbarrancado, 1350 m, 12°45'29"S, 41°30'21"W, 24 June 2011, fl. fr., *Patato et al.* 121 (HUEFS).

**HABITAT.** Sandy and rocky soils, in *campo rupestre*, c. 1350 m alt.

**CONSERVATION STATUS.** Endangered, Criteria B1 a,b (i,iii) (IUCN 2001). Endemic to Serra do Esbarrancado, Guiné, in the vicinity of Mucugê, Bahia, Brazil.

**ETYMOLOGY.** The specific epithet refers to the larger size of the petals found in this species.

**NOTES.** *Microlicia macropetala* resembles *M. torrendii*, a Bahian species, by having quadrangular, glutinous branches, covered in sessile, spherical golden glands and leaves with crenate margins. *M. torrendii* however has smaller, 1-nerved leaves 5.5 – 7 × 3.5 – 4.5 mm, calyx lobes c. 1 × 1 mm, petals 13 – 14 × 7 – 8 mm and style 2 – 2.5 mm long. *M. hatschbachii* Wurdack, an endemic species from Bahia, also has quadrangular branches, elliptical 3-nerved leaves, pink petals and style 8.5 – 12 mm long. *M. hatschbachii* differs from *M. macropetala* by having branches with glandular trichomes, larger leaves (10 – 15 × 6 – 8 mm), smaller calyx lobes (1.5 – 2 × 2.5 mm) and petals (16 – 17 × 9 – 13 mm), larger stamens with connective prolonged 1.5 – 2.5 mm and ventral appendage 0.5 – 1 mm long. *M. balsamifera* also has longer leaves (18 – 25 × 5 – 7 mm) and smaller calyx lobes (3 × 3 mm) and petals (12 – 13 × 6 – 8 mm).

If using the multi-access key to the species of *Microlicia* from Bahia (Woodgyer 2005), the formula for *M. macropetala* is: BEHKPSUWbe

**Microlicia pulchra** *Patato & R. Romero* sp. nov. Type: Brazil, Bahia, Mucugê, Serra do Esbarrancado, c. de 40 km de Mucugê, *Patato, Ogasawara & Espírito-Santo* 53 (holotype HUEFS!; isotypes ALCB!, HUFU!).

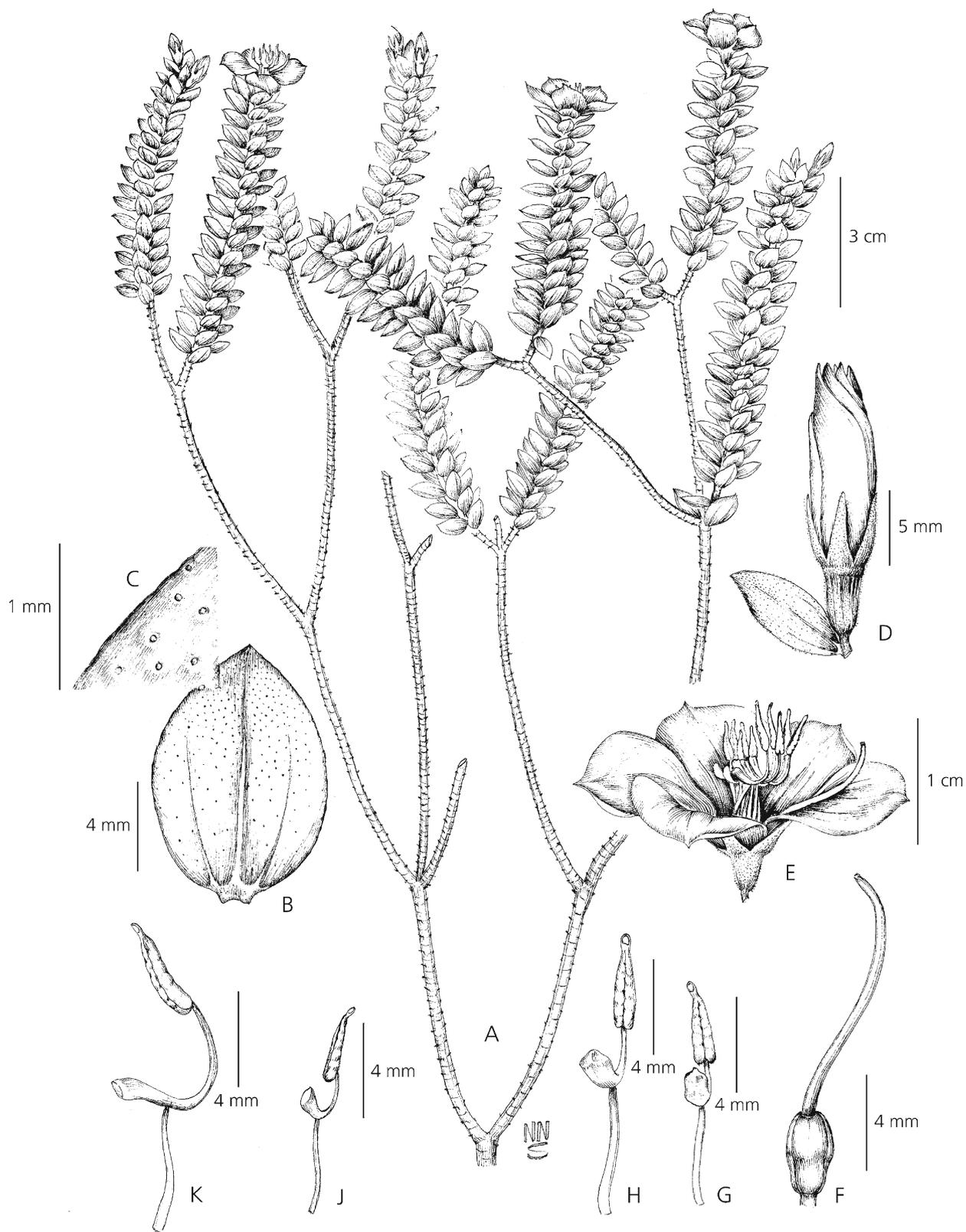
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Branched shrub, 1 – 1.5 m tall. *Young branches* terete, yellowish green, becoming brownish grey with age, with glandular trichomes c. 0.2 mm long at the nodes, glabrous with age, leaf scars quite evident. *Leaves* ascending, imbricated, chartaceous, yellow-green (dry state), concolourous, concentrated at the apex, sessile or with short petiole to 0.5 mm long; blade elliptic to oblanceolate, 10.5 – 12 × 4 – 5 mm, apex acute, with a glandular trichome, c. 0.3 mm long, margin serrate, glandular-ciliate, glandular trichomes c. 1.2 mm long, base cuneate, 3-nerved. *Flowers* 5-merous, terminal; pedicel 2.5 – 3 mm long. *Hypanthium* 2.5 – 3 × 2.5 – 3 mm, yellow-green, campanulate, glabrous; calyx lobes triangular, 3.5 – 5 × 1 – 1.5 mm, green, apex acute with a terminal seta c. 1 mm long, margin entire, covered with glandular trichomes c. 1.5 mm long. *Petals* oblong, 15 – 16.5 × 7 – 8 mm, magenta, apex acute, with a glandular trichome c. 1 mm long, margin entire, glabrous. *Stamens* 10, dimorphic: larger stamens 5: filaments 6 – 7 mm long, magenta, thecae 4.5 – 5 mm long (including beak), dark, oblong, polysporangiate, beak c. 0.5 mm long, connective prolonged 4.5 – 6 mm long, magenta, ventral appendage 1 – 2 mm long, yellow, acute or truncate at the tip; smaller stamens 5: filaments 6 – 6.5 mm long, pink, thecae 3.5 – 4 mm long (including beak), dark, oblong, polysporangiate, beak c. 0.3 mm long, yellow, connective prolonged 2 – 2.5 mm long, yellow, ventral appendage 0.5 – 1 mm long, yellow, truncate or bi-lobed at the tip. *Ovary* ovoid, c. 3 × 2 – 2.5 mm, superior, 3-locular, glabrous, style 14 – 16 mm long, terete, magenta, stigma punctiform. *Capsule* ovoid, brownish 4 – 5 × 3 – 4 mm, glabrous, dehiscing into 3 valves from the apex, columella persistent. *Seeds* c. 0.7 × 0.4 mm, reniform, testa foveolate, brown. Fig. 4.

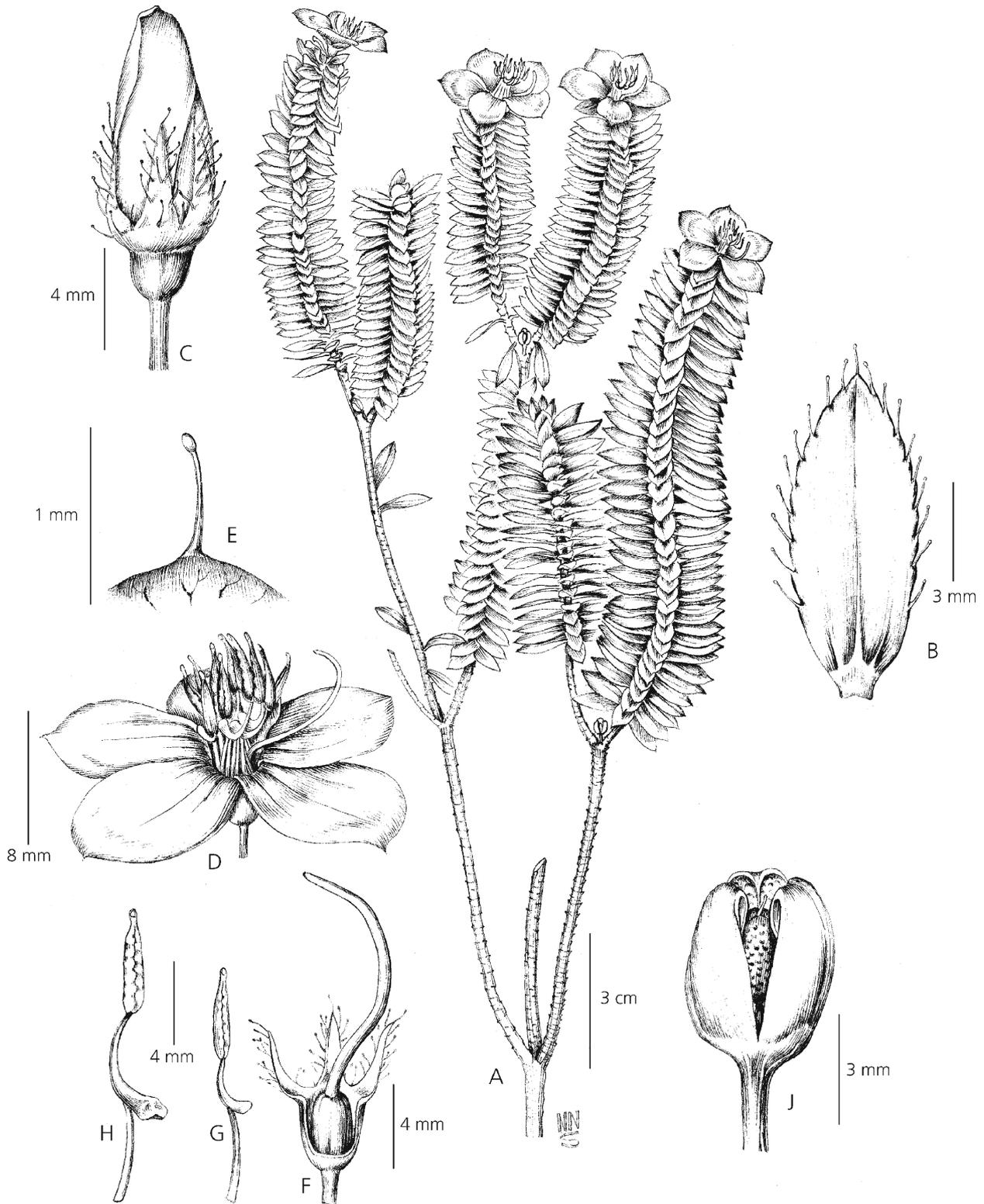
**RECOGNITION.** Related to *Microlicia giuliettiana* A. B. Martins & Almeda but differs in having petals magenta, apex with a glandular trichome c. 1 mm long (vs magenta pink petals when expanded with an abaxial red band or stripe on one side of each petal, apex glabrous in *M. giuliettiana*) and columella persistent (vs columella deciduous in *M. giuliettiana*).

**DISTRIBUTION.** Endemic to Serra do Esbarrancado, vicinity of Mucugê, Bahia, Brazil.

**SPECIMENS EXAMINED. BRAZIL.** Bahia: Mucugê, Serra do Esbarrancado, c. de 40 km de Mucugê, 1350 m, 12°45'48"S, 41°30'04"W, 17 Aug. 2010, fl., fr., *Patato, Ogasawara & Espírito-Santo* 53 (holotype HUEFS; isotypes



**Fig. 3.** *Microlicia macropetala*. A habit; B leaf; C leaf margin; D flower bud; E flower; F gynoecium; G small stamen (showing acute appendage); H large stamen (showing acute appendage); J small stamen (showing truncate appendage); K large stamen (showing truncate appendage). From *Pataro et al.* 49. DRAWN BY NATANAEL NASCIMENTO.



**Fig. 4.** *Microlicia pulchra*. A habit (with persistent columella); B leaf; C flower bud; D flower; E petal (showing glandular trichome); F gynoecium; G small stamen; H large stamen; J fruit. From *Pataro et al.* 53. DRAWN BY NATANAEL NASCIMENTO.

ALCB, HUFU); Mucugê, Serra do Esbarrancado 1300 m, 12°45'48"S, 41°30'04"W, 28 Nov. 2011, fl. fr., *Espírito-Santo* & *Sirqueira* 180 (HUEFS).

**HABITAT.** In *campo rupestre* close to the river; c. 1300 m alt.

**CONSERVATION STATUS.** Endangered (EN), Criteria B1 a,b (i,iii) (IUCN 2001). *Microlicia pulchra* is known only from the type locality, in a small population near to the river. This region is exposed to tourism and the associated human impacts.

**ETYMOLOGY.** The specific epithet refers to the very exuberant habit and the beautiful flowers of this species.

**NOTES.** *Microlicia pulchra* resembles *M. giuliettiana*, an endemic species from Bahia, by having leaves with crenate to serrate margins and calyx lobes covered with glandular trichomes. *M. giuliettiana* differs in having pedicels c. 1 mm long, quadrangular branches covered in glandular trichomes, pink anthers longer than 3 mm and styles c. 6 mm long. *M. giuliettiana* also has an unusual petal colour and pattern with the petals magenta pink when expanded with an abaxial red band or stripe on one side of each petal (Almeda & Martins 2001). *M. ciliatoglandulosa* R. Romero, endemic from Serra do Cabral in Minas Gerais state, also has leaves with glandular-ciliate margins, but the leaves are crenulate and the abaxial surface has dense indumentum with glandular trichomes and petals are without a glandular trichome.

According to Almeda & Martins (2001), the presence of a persistent columella is an exclusive feature of *Lavoisiera* species. Although the specimens of *Microlicia pulchra* collected in Mucugê have persistent columellae, we have placed them in the genus *Microlicia* due to the solitary flowers, five petals, superior ovary with three locules and capsule dehiscence longitudinal from the apex to the base, characters used to distinguish *Microlicia* from *Lavoisiera* (Almeda & Martins 2001; Romero 2003).

If using the multi-access key to the species of *Microlicia* from Bahia (Woodgyer 2005), the formula for *M. pulchra* is: BDHKOUWbe

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