



A New Species of *Doliocarpus* and a New Species of *Tetracera*
(Dilleniaceae) from Brazil

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ABSTRACT. During the course of a taxonomic study of the Neotropical species of Dilleniaceae, two new species from Brazil were discovered: *Doliocarpus lombardii* from the "Mata Atlântica" and *Tetracera boomii* from the "Mata de Restringa" and "Cerrado" vegetation dominated by *Curatella americana* L. The two new species are described, illustrated, and compared to closely related species. By its sessile inflorescence *Doliocarpus lombardii* is closely related to *D. sessiliflorus* Martius, but differs from that species in its longer leaf blades (9–22 cm long), densely pubescent on the lower surface; sepals 5, 6–11 mm long, ovate or elliptic, adpressed sericeous in midrib internally; and fruit densely hispid. *Tetracera boomii* is known only from two places in Bahia and Sergipe states, Brazil, and is similar to *T. lasiocarpa* Eichler in that both bear follicles 1–1.5 cm long, densely hispid at the apex; however, *T. boomii* differs from that species in its leaves rigid-coriaceous, elliptic, aerolate below and margins dentate, inflorescences 1–2 cm long, bracteoles ca. 6 mm long, sepals 11–14, filaments 4–5 mm long, and aril completely covering the seed.

Key words: Brazil, Dilleniaceae, *Doliocarpus*, *Tetracera*.

Species of *Doliocarpus* Rolander are mostly lianas (rarely shrubs), with inflorescences that are ramiflorous, fasciculate, or glomerate, the ovary unicarpellate, 1-celled, the fruit a berry, and seeds covered with white arils. *Tetracera* L. is the only genus in the Dilleniaceae with either unisexual or bisexual flowers; all Neotropical species are andro-

dioecious (Dickinson, 1968; Kubitzki, 1970). *Doliocarpus* includes about 45 species and *Tetracera* ca. 20; Brazil is the center of diversity for both genera.

Tetracera boomii G. Aymard C., sp. nov. TYPE: Brazil. Bahia: Entre Rios, 23 km from Subaúma on road to Entre Rios, 29 May 1981, S. A. Mori & B. M. Boom 14196 (holotype, CEPEC not seen; isotype, NY). Figure 1.

Haec species *T. lasiocarpae* affinis, sed ab ea foliis rigido-coriaceis ellipticis subtus areolatis margine dentatis, inflorescentia 1–2 cm longa dense adpresso-pubescente; sepalis 11 ad 14, petalis 4 intus dense sericeis, filamentis 4–5 mm longis atque arillo semen omnino tegente.

Liana, bark brown, flaking; branches and branchlets sparsely adpressed pubescent to glabrescent when mature. Leaves elliptic, rigid-coriaceous, 4–22 × 3–13 cm, base cuneate, apex rotundate, scabrous and sparsely pilose on the upper surface, papillate and glabrescent on the lower surface, except for the midrib and secondary nerves, these sparsely adpressed pubescent, with stellate and simple trichomes, margins dentate mostly in the upper half, the veins elevated, areolate below, sunken above, with 6 to 15 parallel nerves on each side of mid-nerve, craspedodromous venation; petioles 0.5–2.2 cm long, 1–4 mm wide, subwinged, canaliculate, adpressed pubescent. Inflorescence thyrsoid, axillary or terminal, 1–2 cm long, rachis densely adpressed pubescent, bracteoles lanceolate, ca. 6 mm long, sparsely adpressed pubescent externally, sericeous internally mostly in the middle, pedicel 0.5–5 mm long, 1 to 3 flowers per

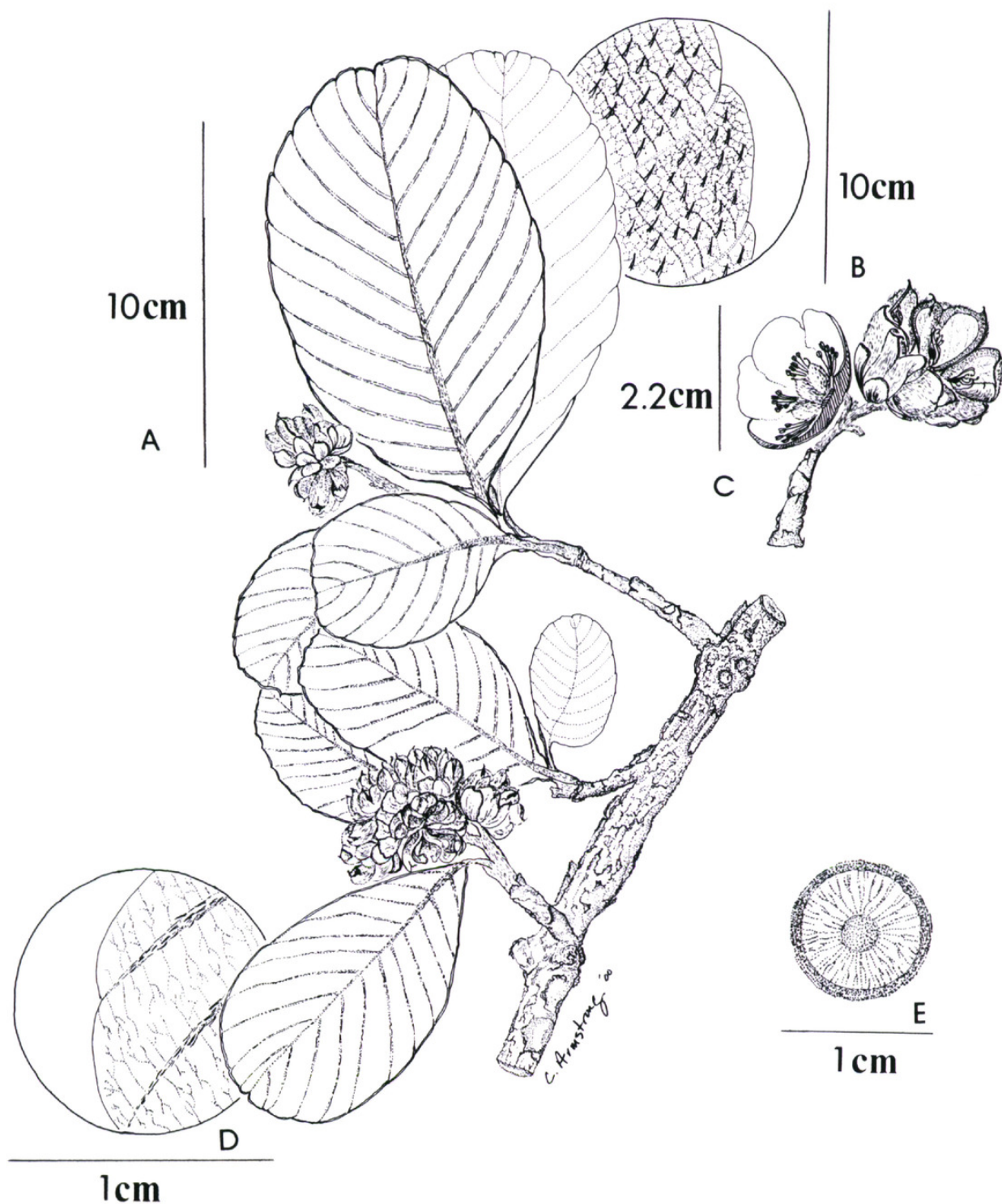


Figure 1. *Tetracera boomii* G. Aymard C. —A. Branch with leaves and inflorescences. —B. Upper leaf surface. —C. Upper part of the inflorescence. —D. Lower leaf surface. —E. Cross section of stem with vascular tissue arranged in bands separated by abundant parenchyma. (Drawn from the isotype, *Mori & Boom 14196*, NY.)

cyme. Flowers androdioecious, bisexual; sepals 11–14, unequal, the outer 4–10 mm long, broadly ovate, the inner 10–12 mm long, broadly ovate, sparsely adpressed sericeous externally, densely sericeous internally, except at the margins; petals 4, obovate to oblanceolate, 8–12 mm long, glabrous externally, glabrous internally except in the mid-

point, which is densely adpressed sericeous. Stamens 100–120, filaments 4–5 mm long, glabrous, anthers oblong, ca. 0.75 mm long; staminate flowers not seen. Carpels 7 to 8, ca. 5 mm long, free, densely hispid sericeous, style ca. 2 mm long, glabrous. Follicles 1–1.5 cm long, divergent, densely hispid at the apex, with large yellow trichomes;

Table 1. Comparison of the distinguishing characters of *Tetracera boomii* and *T. lasiocarpa*.

	<i>Tetracera boomii</i>	<i>Tetracera lasiocarpa</i>
Leaves	rigid-coriaceous, elliptic, areolate below; margins dentate	subcoriaceous, obovate or elliptic, without areoles; margins mucronate-dentate
Inflorescence	1–2 cm long, densely adpressed pubescent; bracteoles ca. 6 mm long	5–10 cm long, strigose pubescent; bracteoles 2–4 mm long
Sepals	11–14	7–9
Petals	4, densely sericeous at midpoint internally	5, glabrous internally
Filaments	4–5 mm long	ca. 3 mm long
Aril	completely covering the seed	covering half the seed

style persistent, 1–2 mm long; seeds 1 per carpel, 4–5 mm long, black, aril laciniate, completely covering the seed.

Distribution and habitat. *Tetracera boomii* is known only from two collections, in “Mata da Res-tringa” and “Cerrado” areas dominated by *Cura-tella americana* in the Brazilian states of Bahia and Sergipe.

Because of its scabrous leaves and many-flowered cymes, *Tetracera boomii* belongs to the section *Tetracera* (Kubitzki, 1970). Based on the size of the follicles (1–1.5 cm long), which are densely hispid at the apex with large yellow trichomes, this new species is related to *T. lasiocarpa* from Bahia, Brazil. However, *T. boomii* can be distinguished from *T. lasiocarpa* by the characters indicated in Table 1.

This species is named in honor of Brian M. Boom, whose collections and fieldwork have added much to our knowledge of the Bahian flora.

Paratypes. BRAZIL. **Sergipe:** Santa Luzia do Itanhi, 500 m S of Distrito de Castro, 29 Nov. 1993, S. C. de Sant’Ana et al. 480 (CEPEC, NY).

Doliocarpus lombardii G. Aymard C., sp. nov.
TYPE: Brazil. Minas Gerais: Parque Estadual do Rio Doce, Marliéria-Salão Dourado, 15 June 1995, J. A. Lombardi & L. G. Temponi 791 (holotype, BHCb; isotype, PORT). Figure 2.

Haec species *D. sessifloro* affinis, sed ab eo lamina foliari 9–22 cm longa 4–10 cm lata oblanceolata basi attenuata subtus dense pubescente, sepalis quinque 6–11 mm longis ovatis ellipticisve nervo medio interne adpresse sericeo atque fructu trichomatibus luteis dense hispido differt.

Liana, bark flaking; branches densely sericeous pubescent, becoming glabrescent when mature. Leaves oblanceolate, 9–22 × 4–10 cm, subcoriaceous, base attenuate, apex acuminate, margins sub-revolute, strongly dentate, mostly in the upper half, becoming glabrous on the upper surface, except along the midrib and secondary nerves, where covered by adpressed trichomes, densely pubescent

(erect trichomes) and verrucose on the lower surface, most dense along the midrib and secondary nerves; lateral nerves 11 to 16, convergent and linking 2 mm to the margin, elevated in the lower surface, petioles 6–8 mm, exalate, densely adpressed pubescent. Inflorescence sessile, axillary, sepals 5, 6–11 mm long, unequal (internally ovate, externally elliptic), densely adpressed sericeous externally, glabrous in the margins, adpressed sericeous in midrib internally, petals and stamens caducous, not seen; ovary densely hispid, style glabrous, 2–6 mm long. Fruit densely hispid sericeous, 0.6–1 cm diam.; seed black, 3–4 mm long, 2 per fruit, aril entire, completely covering the seed.

Distribution and habitat. Known only from the type and paratype collections, where it has been collected in “Mata Atlântica” forest in Minas Gerais state, Brazil.

Because of its tertiary venation and pubescent ovary, *Doliocarpus lombardii* belongs to the section *Doliocarpus* (Kubitzki, 1971). By its sessile inflorescence, this new species is most similar to *D. sessiliflorus* from Rio de Janeiro and São Paulo states, Brazil. However, *D. lombardii* differs from the latter species in its longer leaves, 9–22 × 4–10 cm, oblanceolate blades, attenuate base, densely pubescent in the lower surface; sepals 5, 6–11 mm long, ovate or elliptic, adpressed sericeous in midrib internally; and fruit densely hispid (trichomes yellow). In contrast, *D. sessiliflorus* has leaves 4–7 × 2–3 cm, obovate blades, cuneate base, sparsely pilose to glabrescent in the lower surface; sepals 5 or 6, ca. 5 mm long, suborbicular, glabrous internally; and fruit puberulent sericeous (gray trichomes).

This species is named in honor of Julio B. Lombardi, who collected the type specimen.

Paratypes. BRAZIL. **Minas Gerais:** Parque Estadual do Rio Doce, entrada do Parque, próximo Salão Dourado, Marliéria, 30 Mar. 1996, J. A. Lombardi et al. 1188 (BHCb, PORT).

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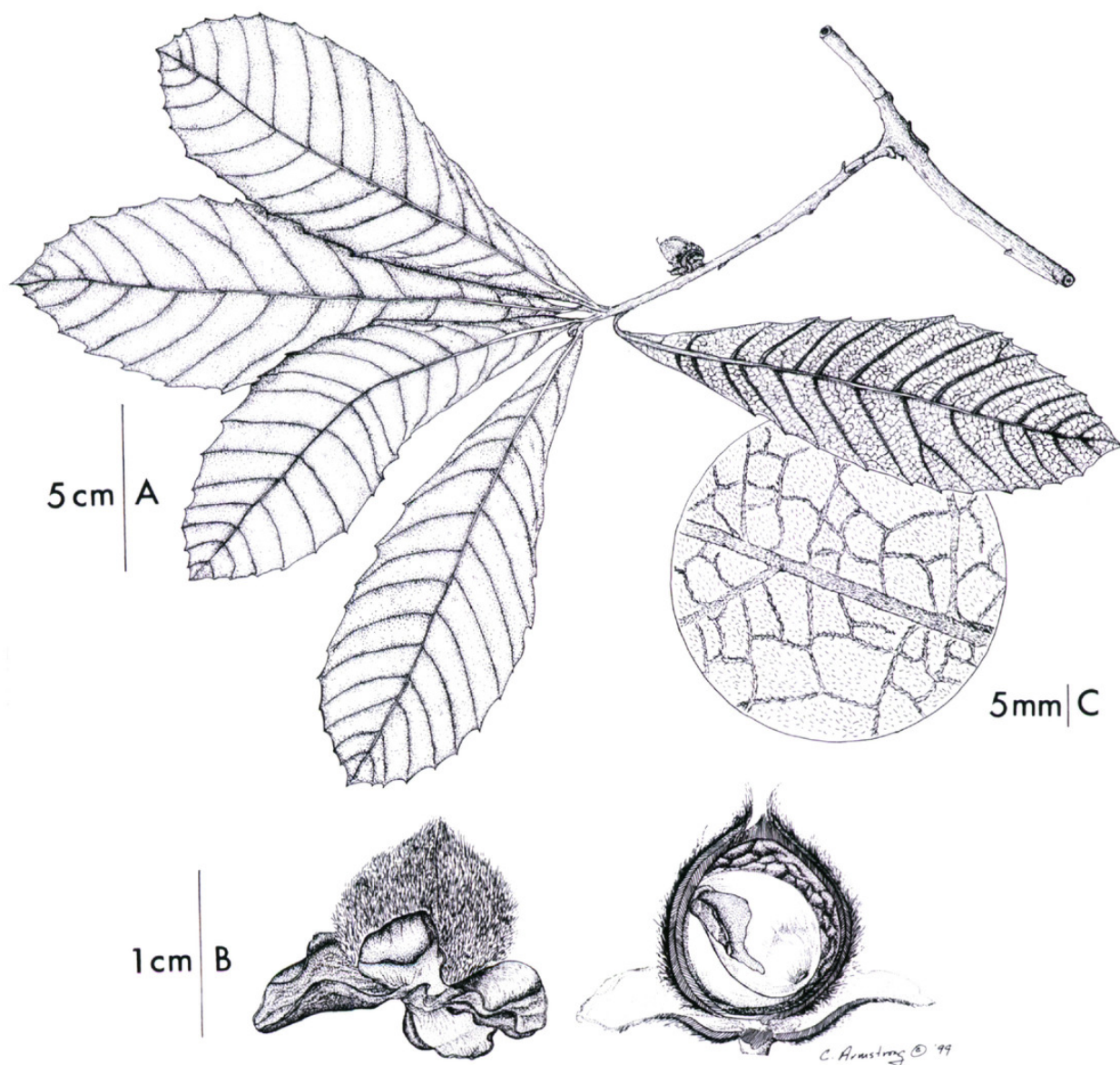


Figure 2. *Doliocarpus lombardii* G. Aymard C. —A. Branch with leaves and sessile inflorescence. —B. Flower with a young fruit, tissue removed showing the seed covered by the aril. —C. Lower leaf surface. (Drawn from the holotype, *Lombardi & Temponi 791*, BHCB.)

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