Excerpt from:

W. R. Anderson. 2006.

Eight Segregates from the Neotropical Genus *Mascagnia* (Malpighiaceae)

Novon 16: 168–204. [*Malpighiodes* on pages 191–194, 195]

VII. Malpighiodes Niedenzu, Verz. Vorles. Königl. Lyceum Hosianum Braunsberg 1909/10: 31. 1909. *Tetrapterys* subsect. *Malpighiodes* (Niedenzu) Niedenzu, Arbeiten Bot. Inst. Königl. Lyceum Hosianum Braunsberg 4: 12. 1912. LECTOTYPE: *Malpighiodes spruceana* Niedenzu [= *Malpighiodes bracteosa* (Grisebach in Martius) W. R. Anderson]. Brazil, Amazonas: "in vicinibus Barra [Manaus], prov. Rio Negro, coll. R. Spruce Dec.–Martius 1850–51," *R. Spruce [1093]* (lectotype, designated here, M).

Woody vines. Petiole eglandular or bearing 2–8 small glands in 2 rows; lamina usually bearing few to many small glands impressed in abaxial surface in 1–3 rows between midrib and margin; stipules minute, triangular, borne on proximal half of petiole or at junction of petiole and stem, or apparently lacking. Inflorescence a terminal or lateral compound dichasium or paniculate dichasium, strictly decussate, with the flowers borne in pairs or umbels or corymbs of 4(–8); floriferous peduncle well developed; bracteoles eglandular, broad and rounded (elliptical or obovate), 2.5–4 mm long, borne between middle and apex of peduncle. Sepals valvate, completely concealing petals during enlargement of bud, revolute in anthesis, all 5 biglandular; corolla bilaterally symmetrical, the posterior petal somewhat different from lateral 4; petals yellow turning red in age, glabrous; stamens 10, all fertile; filaments ca. 1/2-connate, straight, those opposite sepals slightly longer than those opposite petals; anthers alike, glabrous; carpels completely connate in ovary; styles ± straight, subequal, stout, truncate at apex with the stigma terminal or nearly so. Fruit dry, breaking apart into samaras separating from a prominent pyramidal torus (in *Malpighiodes bracteosa* the mericarps with the wings reduced to coriaceous or corky outgrowths); samara suborbicular or transversely elliptical, the lateral wing, if developed, dominant, membranous with many looping anastomoses, cleft to nut at apex, continuous at base, the margin entire, undulate, or coarsely toothed; dorsal wing small, free

from lateral wing at base, extended forward at apex through gap in lateral wing; intermediate winglets none or 1–several seta-like structures as high as width of dorsal wing or smaller; ventral areole broadly ovate.

The name *Malpighiodes* refers to a resemblance Niedenzu saw between the reduced fruits of *Malpighiodes bracteosa* and the fruits of *Malpighia* (Niedenzu, 1908: 18). That fruit is quite different from the membranous samaras of *Malpighiodes guianensis* (W. R. Anderson) W. R. Anderson and *Malpighiodes leucanthele* (Grisebach in Martius) W. R. Anderson (the fruits of *Malpighiodes liesneri* (W. R. Anderson) W. R. Anderson are not known), but many other shared character-states tie these four species together into a coherent group. Among those similarities are the glands embedded in the abaxial leaf surface, dichasial inflorescence with decussate flowers, large rounded bracteoles, long valvate biglandular sepals concealing the petals in bud and revolute in anthesis, glabrous yellow petals turning red in age, and terminal or subterminal stigmas. In Davis et al. (2002), this genus (represented by *Mascagnia bracteosa* Grisebach in Martius) was placed with 90% bootstrap support as sister to a clade containing *Alicia anisopetala* and *Callaeum septentrionale* (A. Jussieu) D. M. Johnson. The suite of characters given above immediately distinguishes *Malpighiodes* from those two genera.

The name *Malpighiodes* was introduced in a footnote (Niedenzu, 1908: 18). In that publication the diagnosis was so minimal as to be unacceptable and no species or combinations were proposed, so even though it is clear that Niedenzu intended to publish a generic name I consider it not to have been validly published in 1908. A year later (Niedenzu, 1909: 31), he gave an expanded diagnosis and published three species; I am accepting that as the valid publication of the name *Malpighiodes*.

Malpighiodes comprises four species of northern South America.

Key to the Species of *Malpighiodes*

1a. Abaxial leaf hairs sessile, straight, appressed.
  2a. Hairs on lateral axes of inflorescence straight to twisted, loose, mostly white; bracts and bracteoles densely white-tomentose on both sides; bracteoles borne at apex of peduncle; fruit unknown; Amazonas, Venezuela . . . . . 4. *M. liesneri*
  2b. Hairs on inflorescence axes straight, appressed, mostly golden; bracts and bracteoles densely sericeous on abaxial side, thinly sericeous on adaxial side; bracteoles borne at or somewhat below apex of peduncle; mericarp wings coriaceous and rudimentary; vicinity of Manaus, Amazonas, Brazil . . . . . 1. *M. bracteosa*
1b. Abaxial leaf hairs stalked, the branches straight or serpentine and often ascending.
  3a. Mature leaves very densely and persistently tomentose below; petiole usually biglandular near middle; filaments abaxially sparsely sericeous; Guyana, Suriname, and French Guiana . . . . . 2. *M. guianensis*
  3b. Mature leaves glabrate or thinly hispid below; petiole eglandular; filaments glabrous; western Amazonas, Brazil . . . . . 3. *M. leucanthele*

1. Malpighiodes bracteosa (Grisebach in Martius) W. R. Anderson, comb. nov. Basionym: *Mascagnia bracteosa* Grisebach in Martius, Fl. Bras. 12(1): 97. 1858. *Hiraea bracteosa* (Grisebach in Martius) Sagot, Ann. Sci. Nat. Bot., Sér. 6, 12: 187. 1881. *Malpighiodes spruceana* Niedenzu, Verz. Vorles. Königl. Lyceum Hosianum Braunsberg 1909/10: 31. 1909. *Diplopterys bracteosa* (Grisebach in Martius) Niedenzu, Arbeiten Bot. Inst. Königl. Lyceum Hosianum Braunsberg 4: 20. 1912. *Diplopterys spruceana* (Niedenzu) Niedenzu, Arbeiten Bot. Inst. Königl. Lyceum Hosianum Braunsberg 4: 21. 1912. *Jubelina bracteosa* (Grisebach in Martius) Cuatrecasas, Webbia 13: 446. 1958. *Mascagnia heterocarpa* W. R. Anderson, Mem. New York Bot. Gard. 32: 216. 1981, replacement name for *Malpighiodes spruceana* Niedenzu, non *Mascagnia spruceana* Niedenzu. TYPE: Brazil. Amazonas: vic. of Barra [Manaus], *R. Spruce [1093]* (lectotype, designated by Anderson (1990a: 31), M; duplicates, BM, CGE, E, G, GH, K, LE, NY). Figure 9J.

See Anderson, 1990a: 31, for a discussion of the lectotypification of *Mascagnia bracteosa*. The M sheet that was designated in 1990 as lectotype of that name is designated above as lectotype of *Malpighiodes spruceana*, the type of the genus.

2. Malpighiodes guianensis (W. R. Anderson) W. R. Anderson, comb. nov. Basionym: *Mascagnia guianensis* W. R. Anderson, Mem. New York Bot. Gard. 32: 213. 1981. TYPE: Guyana. Rockstone, *H. A. Gleason 825* (holotype, NY; isotypes, K). Figure 9A–I.

This species is known from Guyana, Suriname, and French Guiana (Anderson, 1981: 215).

3. Malpighiodes leucanthele (Grisebach in Martius) W. R. Anderson, comb. nov. Basionym: *Mascagnia leucanthele* Grisebach in Martius, Fl. Bras. 12(1): 96. 1858. TYPE: Brazil. Amazonas: between Barcelos and São Gabriel, *R. Spruce [2070]* (isotypes, BM, K, M).

The holotype is not in GOET (J. Heinrichs, pers. comm.). If Grisebach annotated any of the isotypes, that should be considered the holotype.

4. **Malpighiodes liesneri** (W. R. Anderson) W. R. Anderson, comb. nov. Basionym: *Mascagnia liesneri* W. R. Anderson, Contr. Univ. Michigan Herb. 17: 51. 1990. TYPE: Venezuela. Amazonas: San Carlos de Río Negro, *R. Liesner 9063* (holotype, MO; isotypes, MICH, VEN).

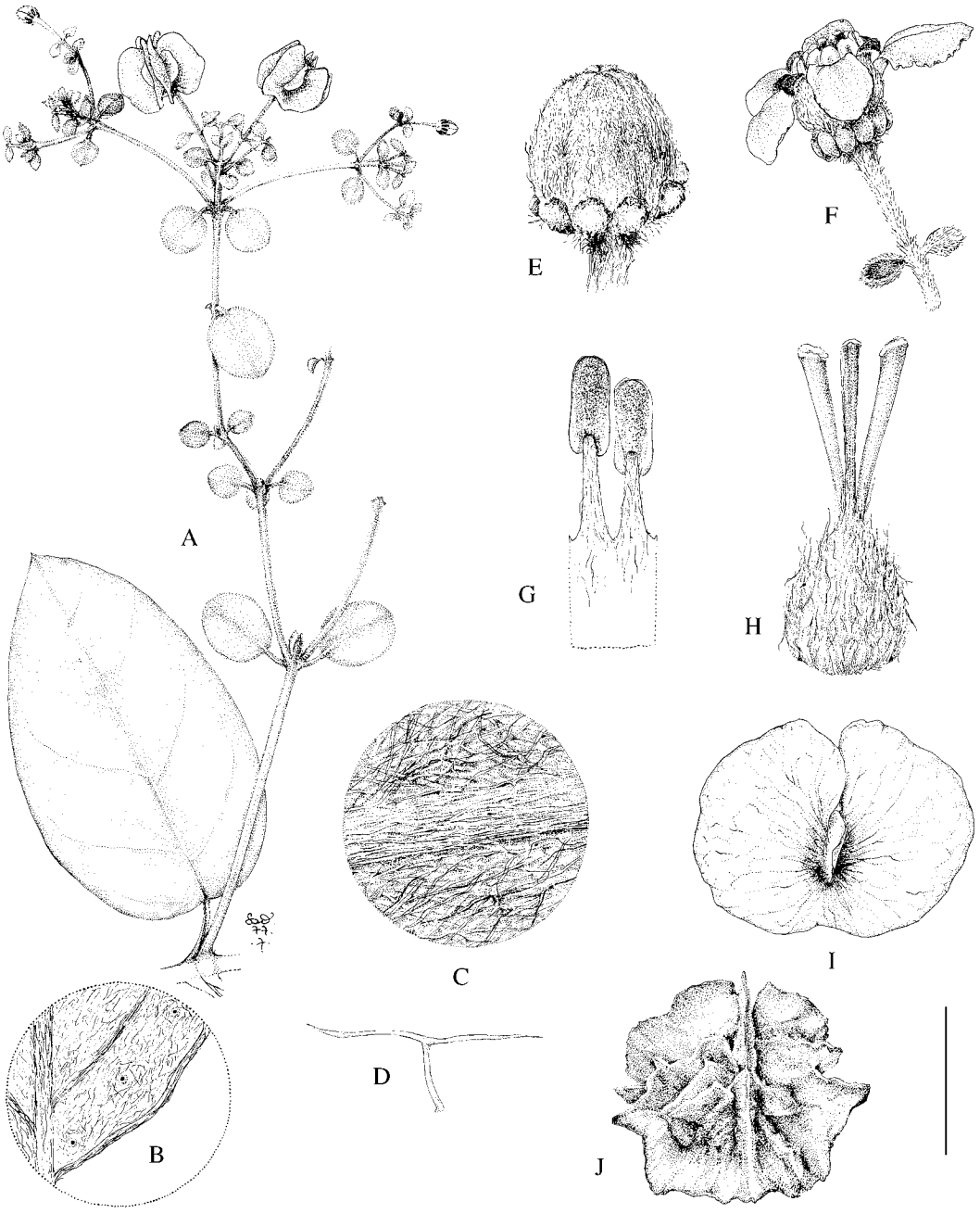

Figure 9. A–I. *Malpighiodes guianensis* (W. R. Anderson) W. R. Anderson. —A. Flowering and fruiting branch. —B. Abaxial base of lamina to show glands. —C. Abaxial surface of lamina. —D. Detached hair from abaxial surface of lamina. —E. Flower bud. —F. Flower, posterior petal to the right. —G. Stamens, abaxial view, the stamen on left opposite a sepal. —H. Gynoecium. —I. Samara, abaxial view. —J. *Malpighiodes bracteosa* (Grisebach in Martius) W. R. Anderson. Mericarp, abaxial view. Scale bar equivalents: A, 3 cm; B, 8 mm; C, 1 mm; D, 0.6 mm; E, 3 mm; F, 6 mm; G & H, 2 mm; I, 2 cm; J, 1 cm. A, C, D & I, *Gleason 825* (NY); B & G, *Cremers 8143* (MICH); E, F & H, *Forest Dept. 3644* (NY); J, *Ducke 1169* (NY). Modified from a drawing by Karin Douthit and originally published in Memoirs of the New York Botanical Garden 32: 214. 1981.