A new species of Heteropterys (Malpighiaceae) from the semideciduous forests of Bahia, Brazil

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Amorim, A. M. (Universidade Estadual de Santa Cruz, Departamento de Ciências Biológicas, Ilhéus, 45.650-000, Bahia, Brazil; e-mail: aamorimm@terra.com.br). A new species of *Heteropterys* (Malpighiaceae) from the semideciduous forests of Bahia, Brazil. Brittonia 56: 143–146. 2004.—**Heteropterys andersonii,** related to series *Metallophyllis* Nied., is described as new and illustrated.

Key words: Malpighiaceae, *Heteropterys*, *Metallophyllis*, Bahia, Brazil.

Amorim, A. M. (Universidade Estadual de Santa Cruz, Departamento de Ciências Biológicas, Ilhéus, 45.650-000, Bahia, Brazil; e-mail: aamorimm@terra.com.br). A new species of *Heteropterys* (Malpighiaceae) from the semideciduous forests of Bahia, Brazil. Brittonia 56: 143–146. 2004.—**Heteropterys andersonii,** relacionada a série *Metallophyllis* Nied., é descrita como nova e ilustrada.

Heteropterys ser. *Metallophyllis* Nied. is easily recognized by leaves that are golden, bronze, silvery, or metallic-sericeous below, peduncles that are well-developed, stamen filaments that are generally sericeous at base, and styles that are straight or slightly divergent distally. The group encompasses ca. 13 species and is most diverse in coastal Brazil. In Bahia, it is represented by seven species with remarkable distribution ranges (Table I).

During recent fieldwork organized by the Northeastern Atlantic Coastal Forest Project (Centro de Pesquisas do Cacau/The New York Botanical Garden), a new endemic species related to this series was discovered. This novelty reemphasizes the need to preserve Bahia's remaining semideciduous forests and to increase botanical exploration in this region.

Heteropterys andersonii Amorim, **sp. nov.** (Fig. 1)

TYPE: BRAZIL. Bahia: Mun. Itajú do Colônia, rod. Itajú do Colônia a Palmira, ca. 2 km E de Itajú do Colônia, 15°9′12″S, 39°39′27″W, 4 Jan 2000(fl), *A. M. Amorim (with A. Chautems, J. G. Jardim, F. S. Juchum & S. C. Sant'Ana) 3223* (HOLOTYPE: CEPEC; ISOTYPES: G, HUESC, MBM, MBML, MICH, NY, RB, SP).

Liana vel frutex, ramis glabratis. Folia opposita; petiolus 3–6 mm longus, eglandulosus; lamina foliorum majorum 4.7–15.2 cm longa, 1.8–6.4 cm lata, oblonga, oblongo-lanceolata, obovato-oblonga vel lanceolata, margine integra vel sinuata, abaxialiter pertinaciter metallosericea, subtus basi 2 glandulis magnis. Inflorescentia in paniculam erectam disposita, axillaris et terminalis, sericea, floribus in umbellis vel corymbis 3–6-floris, pedunculis 5.5–7.7 mm longis, complanatis, pedicellis 5.7–7 mm longis. Petala flava, patentia, in alabastro exposita, 4 lateralia obtusa, basi truncata, petalum posticum limbo proximaliter glanduloso-dentato. Filamenta abaxialiter sericea. Samarae 31–47 mm longae, 15–20 mm latae, nuce laevi.

Liana climbing to 5–10 m, or shrub to 1–1.8 m tall when nothing is available to climb on; stems 1–1.5 cm diam. at base, cylindrical in cross-section, glabrate, developing scattered lenticels. *Leaves* mostly plane, opposite; petiole 3–6 mm long, initially sericeous to glabrate, eglandular; stipules present on petiole, above the base as minute protuberances 0.1–0.2 mm long, often hidden by hairs, very soon deciduous; lamina of larger leaves (4.7–)6.7–11.7 (–15.2) × (1.8–)3.5–6.4 cm, membranous to chartaceous, oblong, oblong-lanceolate,

TABLE I
DISTRIBUTION RANGES OF *Heteropterys* SER. *Metallophyllis* IN BAHIA, BRAZIL

Species	Habitat in Bahia	Distribution patterns
H. alternifolia W. R. Anderson	Sandy soil, open restinga	Endemic, Bahia
H. andersonii Amorim	Moist forests	Endemic, Bahia
H. arenaria Markgr.	Sandy soil with rock outcrops, campo rupestre	Endemic, Serra do Espinhaço from Bahia to Minas Gerais
H. chrysophylla (Lam.) DC.	Open or arboreal restinga or rarely in wet forests	Restricted, Atlantic coast from Bahia to Paraná
H. coleoptera A. Juss.	Open or arboreal restinga and tabuleiro forests	Restricted, Atlantic coast from Rio Grande do Norte to Rio Grande do Sul
H. macrostachya A. Juss.	Arboreal restinga and tabuleiro forests	Disjunct, Central America, northern Venezuela, Guianas, Amazon Basin and Bolivia to Bahia
H. nitida (Lam.) DC.	Wet forests	Restricted, Atlantic coast from Bahia to Paraná and the alluvial forests from Minas Gerais and Goiás
H. sericea (Cav.) A. Juss.	Moist and alluvial forests	Restricted, Atlantic coast from Sergipe to Paraná and Minas Gerais

obovate-oblong to widely lanceolate, the base obtuse or slightly cuneate, the apex often acute, obtuse, rounded or sometimes acuminate, the margins entire or sometimes slightly sinuate (principally in young leaves), flat; lamina bearing 2 large glands abaxially at base, one each abaxially below on either side of midrib, and a row of small submarginal glands from base to apex (sometimes in sinuses), glabrous above, with densely and persistently silvery or metallic-sericeous indument below, the hairs sessile, straight and appressed, the lateral veins more prominent below, the reticulum more visible below than above. *Inflorescence* a much-branched panicle, terminal or axillary, erect, persistently brown-sericeous, with flowers borne ultimately in umbels or corymbs of (3–)4–6 or more flowers; inflorescence bracts like the leaves, gradually reduced to 1–10 × 0.5–5 mm, oblong to lanceolate, the margins entire; peduncle 5.5–7.7 × 1–1.5 mm, uniformly slender, slightly flattened laterally, straight, densely brown-sericeous; bracts 1.3–1.5 × 0.8–0.9 mm, ovate, eglandular, abaxially densely sericeous, adaxially glabrous; bracteoles like the bracts but smaller; pedicel 5.7–7 × 1–1.8 mm, (6.8–8 × 1–2 mm in fruit), curved upward in flower, densely brown-sericeous, uniformly thicker distally. *Sepals* 1.5–1.7 × 1.2–1.3 mm, brown, rounded at apex, appressed against filaments in anthesis, abaxially densely sericeous, adaxially glabrous; lateral 4 sepals biglandular, the glands 2.8–3.5 mm long, green, turning yellow with age, free at apex, elliptic (in some plants the glands adjacent to anterior sepal form a U, showing that all sepals are biglandular). *Petals* exposed in the enlarging bud, yellow turning orange with age, glabrous, thickened in claw and center of limb but not carinate, narrowly flat; lateral petals spreading, the margin erose, the claw 2.4–2.7 mm long, the limb 3.5 × 2.6–2.8 mm, obtuse, truncate at base; posterior petal suberect, glandular-dentate on the proximal 1/2–2/3, the claw ca. 2.7 mm long, the limb 3–3.5 × 2.2–2.4 mm, triangular or obtuse, truncate at base. *Filaments* 2–2.4 × 0.3–0.7 mm, abaxially sparsely sericeous, connate 1/3–1/2 their length, distally curved sideways or backward; anthers 1.1–1.3 mm long, subequal, reflexed at anthesis, the connective dark red. *Ovary* 1.2–1.5 mm high, densely sericeous; styles 1.7–1.8 mm long, as long as the anthers, glabrous, straight or slightly divergent distally, all 3 dorsally apiculate at apex, with stigma internal and vertically elliptical. *Samara* cream-colored at maturity, (31–)40–47 mm long, borne suberect, thinly sericeous to glabrate; dorsal wing almost as long as the samara, 27–41 × 15–20 mm, the abaxial edge nearly straight; nut 12–14 mm diam., subspheroidal, smooth-sided, without lateral wings or crests.

Distribution and habitat.—Heteropterys

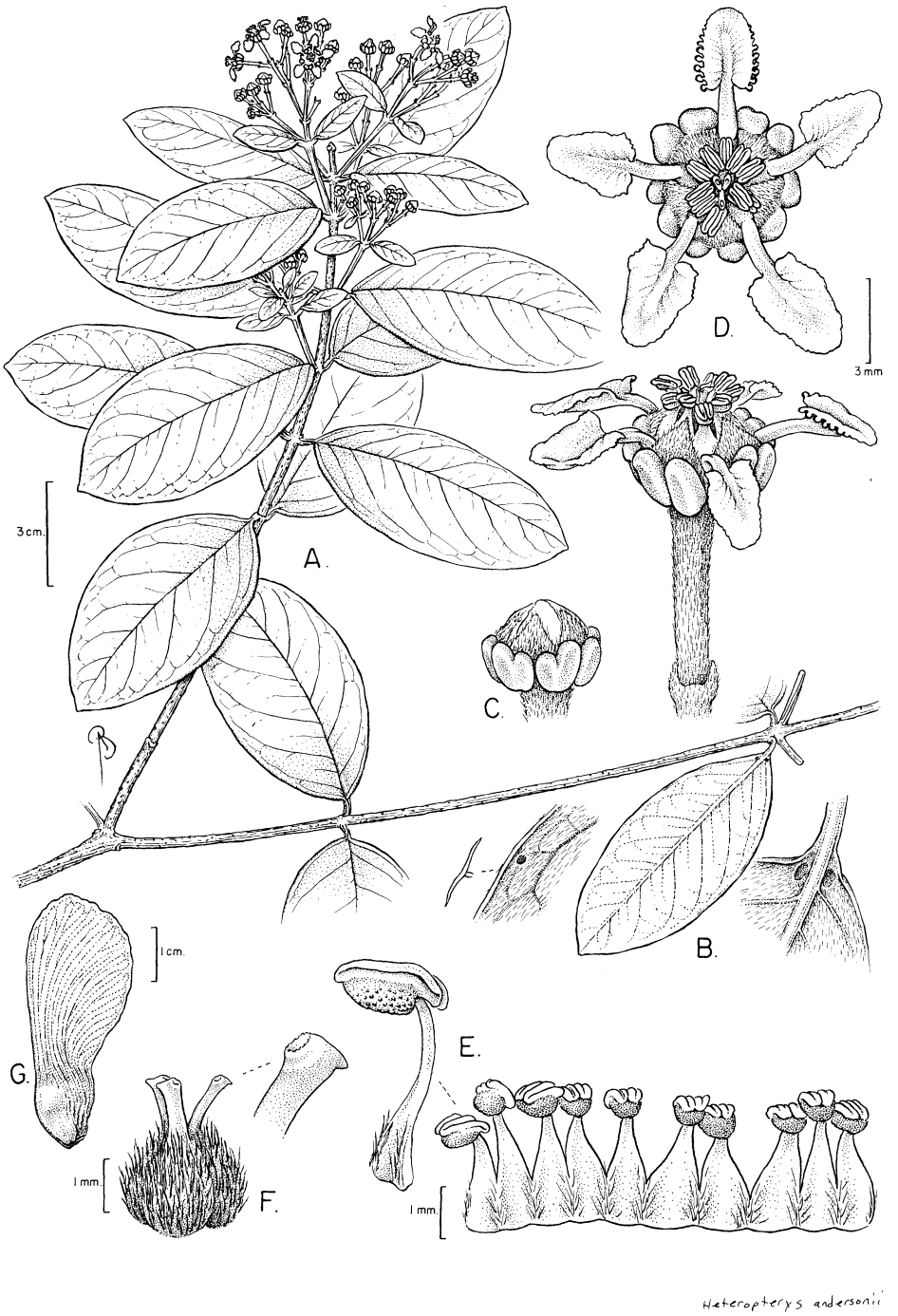

FIG. 1. *Heteropterys andersonii*. **A.** Flowering branch. **B.** Details of abaxial surface of leaf lamina: margin with enlargement of the hair (left) and base to show basal glands (right). **C.** Flower bud, to show glands adjacent to the anterior sepal. **D.** Flower, from above (upper) and side view (lower). **E.** Androecium, laid out, abaxial view: the stamen second from right opposite the posterior petal; the stamen fourth from left opposite the anterior sepal; and enlargement of the one stamen in side view. **F.** Gynoecium, the anterior style to right, its apex enlarged. **G.** Samara. (A–F from the holotype, *Amorim et al. 3223,* CEPEC; G from *Amorim et al. 3642,* CEPEC.)

andersonii is found in the southern Bahian moist (semideciduous) forest, growing into the canopy or subcanopy of primary forests, advanced secondary forests, and in pastures.

Etymology.—The specific epithet honors my friend and colleague William R. Anderson (b. 1942), who has contributed admirably to the knowledge of Malpighiaceae over the past 35 years.

Phenology.—Flowering from November through March; fruiting in April.

Additional specimens examined: BRAZIL. **Bahia**: Mun. Itajú do Colônia: rod. Itajú do Colônia a Palmira, ca. 6.3 km E de Itajú, 15°9′12″S, 39°39′27″W, 4 Feb 2001 (fl), *Jardim & Juchum 3177* (CEPEC, NY); 30 Apr 2001 (fr), *Amorim et al. 3642* (ALCB, CEPEC, G, HUESC, MBM, MBML, MICH, NY, RB, SP); 7.5 km SE of Itajú do Colônia on rd. to Palmira, 15°9′13.1″S, 39°39′27.6″W, 19 Mar 2001 (fl), *Thomas et al. 12368* (CEPEC, JPB, MBM, MICH, NY); Mun. Potiraguá, Rod. para Potiraguá, 26.3 km da BR 415, 15°22′38″S, 39°58′28″W, 2 Nov 2000 (fl), *Jardim et al. 3141* (CEPEC).

Heteropterys andersonii resembles *H. alternifolia* W. R. Anderson, a species endemic to the restingas of Bahia. Both of these species have the characteristic silvery or metallic-sericeous indument on the abaxial surface of the leaves, leaf margins bearing a row of small glands below from base to apex, paniculate inflorescences with terminal umbels of generally (3–)4–6 flowers, and samaras of similar size and features.

However, *Heteropterys andersonii* differs from *H. alternifolia* in having opposite leaves (vs. generally alternate leaves), margins of the lamina flat (vs. margins strongly revolute), petiole 3–6 mm long (vs. petiole 4–13 mm long), peduncle slightly flattened (vs. peduncle cylindrical), lateral petals ovate and truncate basally (vs. lateral petals elliptical and slightly decurrent basally), and filaments sericeous on the abaxial side (vs. filaments glabrous). Another closely related species is *H. coleoptera* A. Juss., which differs from *H. andersonii* in having samaras with well-developed lateral wings.

A distinctive character in *Heteropterys andersonii* is the presence of a single large basal gland on either side of the midrib on the abaxial surface of the lamina. In some plants, the glands adjacent to the anterior sepal form a U, showing that all sepals are biglandular. Another striking characteristic aspect, rarely reported in this genus, is that the flowers are fragrant during the day.

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