Gurania sessiliflora (Cucurbitaceae), a New Species from Panama

Rachel Jane Hampshire
The Natural History Museum, Cromwell Road, London SW7 5BD, England

ABSTRACT. A new Panamanian species, *Gurania sessiliflora*, is described. The species appears most similar to *Gurania coccinea* Cogn. Description of *G. sessiliflora* brings the number of *Gurania* species in Mesoamerica to seven. A key to the Mesoamerican species of *Gurania* is given, followed by a list with synonyms and distributions in Mesoamerica.

During my study of Central American specimens of *Gurania* and *Psiguria* for *Flora Mesoamericana*, the new species *Gurania sessiliflora* was found.

Gurania sessiliflora R. J. Hampshire, sp. nov. TYPE: Panama. Darién: Cerro Pirre, along river by Rancho Frío, 7°58′N, 77°42′W, 600 m, 9 Aug. 1986 (fl), *McDonagh, Lewis, Gumpel & Plumptre 620* (holotype, BM). Figure 1.

Species *G. coccineae* Cogn. similis, sed floribus sessilibus, planta omnino glabrata (nec pilosa nec villosa), foliis integris vel raro lobatis (nunquam foliolatis) differt.

Monoecious vines; tendrils simple; stems slender, striate, glabrate, green or pale brown, the epidermis sometimes flaking. Leaf blades 12–17.5 × 7–13 cm, cordiform to broadly ovate, simple, unlobed, or rarely 2–3-lobed, the apex long-acuminate, glabrate, the base cordate or truncate, the margin remotely dentate; petioles 3.5–7 cm, the epidermis of the basal half flaking, glabrate. Staminate inflorescences axillary, subcapitate; peduncles 9–12.5 cm, ± glabrous; flowers sessile, the apex of the peduncle clearly scarred where earlier flowers have been, the scars congested; calyx tube 4–6 mm, urceolate, glabrous, orange, the lobes 5, ca. 2 mm, conical, glabrous; corolla lobes 5, 2–3 mm, lanceolate, papillose, yellow; anthers 2, ca. 3 mm, oblong, initially straight, spiraling slightly after anthesis, the appendage ca. 0.5 mm, papillose. Female flowers not seen. Fruit not seen.

Paratype. PANAMA. DARIEN: Cerro Pirre, cloud forest and/or mossy forest, ca. 2,500–4,500 ft., 9–10 Aug. 1967, *Duke & Elias 13686E* (MO).

Gurania sessiliflora is clearly distinct from other species of *Gurania*, but is closest to *G. coccinea*. However, *G. coccinea* has distinctly pedicellate flowers (with pedicels 4–15 mm long) and pedicel scars that are evenly spaced at the apex of the peduncle, while *G. sessiliflora* has sessile flowers, with the scars from fallen flowers very congested at the tip of the peduncle. *Gurania coccinea* is usually pilose, or sometimes villous or glabrate, while the new species is glabrate. The leaves of *G. coccinea* are unlobed, 2–3-lobed or (in Panama) 3-foliolate, while those of the new species are unlobed or rarely 2–3-lobed, but never foliolate. It is assumed that, like other species of *Gurania* and *Psiguria*, *G. sessiliflora* will prove to be monoecious (Condon & Gilbert, 1990). A dissected flower of the paratype had three smaller anthers, but is assumed to be an aberrant specimen.

The new species is found in cloud or elfin forest at elevations of 600–1,500 m in the Cerro Pirre area of Darién, Panama. The holotype was collected by four undergraduates from the University of Bristol, England, who made a collection of interesting material while on an expedition to Panama.

Many authors have said the genera *Psiguria* and *Gurania* need revision. Wunderlin (1978) was uncertain whether the two genera were distinct, while Condon & Gilbert (1990) and Jeffrey (1978) acknowledged the need for revision of both genera. For *Flora Mesoamericana* I have treated the species in the broadest sense, reducing to synonymy names which, following a more detailed study, may prove distinct. Following this policy, *G. sessiliflora* brings the total number of *Gurania* species in Mesoamerica (from Tabasco, Yucatan, and Chiapas to the Panama–Colombia border) to seven. A key to the Mesoamerican species of *Gurania* is given below, followed by a list with synonyms and distributions in Mesoamerica.

1a. Older stems corky; calyx tube of male flowers longer than 1 cm; male flowers on pedicels 1–3 cm ..... 7. *G. tubulosa*

1b. Stems never corky; calyx tube of male flowers usually less than 1 cm; male flowers on pedicels usually less than 1 cm.

2a. Calyx lobes of staminate flowers ca. 2 mm (Darién Province, Panama).

Figure 1. *Gurania sessiliflora* R. J. Hampshire. —A. Map of Panama, showing the position of Cerro Pirre, the type locality. —B. Habit. —C. Dissected male flower showing position of the anthers.

3a. Male inflorescences on peduncles longer than 35 cm; leaves hispidulous beneath . . 1. *G. brevisepala*
3b. Male inflorescences on peduncles shorter than 13 cm; leaves glabrate . . . . . 5. *G. sessiliflora*
2b. Calyx lobes of staminate flowers longer than 2 mm (Chiapas–Panama).
4a. Fruit villous; stems villous with hairs 4–6 mm long; male flowers subsessile . . . . . 3. *G. eriantha*
4b. Fruit glabrous; stems sometimes villous, the hairs usually less than 4 mm long, but if longer, the male flowers on pedicels at least 6 mm.
5a. At least some leaves foliolate . . . . . 2. *G. coccinea*
5b. Leaves not foliolate.
6a. Male inflorescences on peduncles longer than 29 cm . . . . . 6. *G. spinulosa*
6b. Male inflorescences on peduncles shorter than 24 cm.
7a. Lowest male flowers on pedicels 1–3 mm . . . . . 4. *G. makoyana*
7b. Lowest male flowers on pedicels at least 4 mm . . . . . 1. *G. coccinea*

1. *Gurania brevisepala* Cuatr.
Panama.

This species, known in Mesoamerica from two collections (*Whitefoord & Eddy 470*, BM, and *Garwood 747*, F), represents a new record for the flora of Panama. One collection is from Mamey, the other from near Jacqué, both in Darién Province.

2. *Gurania coccinea* Cogn.
Synonyms: *G. costaricensis* Cogn., *G. racemifera* Standley.
Nicaragua, Costa Rica, and Panama.

3. *Gurania eriantha* (Poeppig & Endl.) Cogn.
Synonym: *G. hirsuta* Cogn.
Costa Rica and Panama.

4. *Gurania makoyana* (Lem.) Cogn.
Synonyms: *G. donnell-smithii* Cogn. ex J. D. Smith, *G. levyana* Cogn., *G. seemaniana* Cogn., *G. tonduziana* J. D. Smith.
Chiapas, Belize, Guatemala, Honduras, Nicaragua, Costa Rica, and Panama.

5. *Gurania sessiliflora* R. J. Hampshire
Panama.

6. *Gurania spinulosa* (Poeppig & Endl.) Cogn.
Nicaragua and Panama.

This species represents a new record for Nicaragua (Jeffrey, in press) and Panama.

7. *Gurania tubulosa* Cogn.
Synonyms: *G. megistantha* J. D. Smith, *G. suberosa* Standley.
Costa Rica and Panama.

Acknowledgments. I thank Charles Jeffrey (K) for advice and encouragement, Margaret Tebbs (BM) for advice on preparation of the illustration, and Norman Robson (BM) for help with the Latin diagnosis.

Literature Cited

Condon, M. A. & L. E. Gilbert. 1990. Reproductive biology and natural history of the neotropical vines *Gurania* and *Psiguria*. Pp. 150–166 *in* D. M. Bates, R. W. Robinson & C. Jeffrey (editors), Biology and Utilization of the Cucurbitaceae. Comstock Publishing Assocs., Cornell Univ. Press, Ithaca & London.
Jeffrey, C. 1978. Further notes on Cucurbitaceae: IV. Some New-World taxa. Kew Bull. 33: 347–380.
Wunderlin, R. P. 1978. Cucurbitaceae. *In:* Flora of Panama. Ann. Missouri Bot. Gard. 65: 285–366.