

# A New Species of *Selysia* (Cucurbitaceae) from Mesoamerica and a Synopsis of the Genus

Sandra Knapp and Rachel J. Hampshire

Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD, United Kingdom

**ABSTRACT.** A new Panamanian species, *Selysia bidentata*, is described and illustrated, and a key to and a synopsis of *Selysia* are provided. The new species is closely related to *S. smithii*, which occurs from Colombia to Peru in the Andes. This species raises the number of species in *Selysia* to four.

While preparing an account of *Selysia* for *Flora Mesoamericana*, the following new species was identified. It is most similar morphologically to *S. smithii* (Standley) C. Jeffrey from Andean South America and to *S. prunifera* (Poeppig & Endlicher) Cogniaux: differences between the species are detailed in the discussion.

***Selysia bidentata*** R. J. Hampshire, sp. nov. **TYPE:** Panama. Comarca de San Blas: El Llano—Cartí road, 16–20 km from Interamerican Hwy., 9°19'N, 78°55'W, 6 Sep. 1984 (fr), *de Nevers* 3855 (holotype, BM; isotype, MO). Figure 1.

Species *S. pruniferae* (Poeppig & Endlicher) Cogniaux similis, sed seminibus apice bidentatis haud acutis, petiolis villosis nec glabris nec breve pubescentibus.

Monoecious vines; stems sulcate, sparsely pilose to villous; tendrils bifid, often with one branch more robust. Leaves 8–15(–19) × 7–15(–18.5) cm, simple entire and cordate or deeply 3-lobed and broadly ovate to suborbicular, apically acuminate, basally deeply cordate, the margin minutely and remotely denticulate, adaxially glabrate to sparsely tomentose, the veins raised and densely villous, abaxially tomentose; petiole 2.0–2.4(–3.8) cm, loosely villous with straw-colored trichomes 4–5 mm long. Staminate flowers 1–2 in leaf axils; peduncles 3.5–5.2 cm, villous; receptacle conical, villous; calyx 5-lobed, the lobes ca. 6 mm, narrowly triangular; corolla white, campanulate, the lobes ca. 1.3 cm, lanceolate, the margins inrolled, pubescent without, tomentose within. Pistillate flowers 1–2 in leaf axils, only buds seen; ovary ca. 5 mm diam., subglobose, densely tomentose; receptacle cylindrical to subglobose, ca. 3 mm long, calyx lobes 1.5–2 mm, linear; corolla lobes ca. 6 mm in bud. Fruiting peduncle 4.6–8 cm

long, fruit ca. 2.4 cm diam., subglobose, indehiscent, the surface smooth to sparsely short-pubescent, changing from green to red at maturity; seeds 6–9 per fruit, 13–15 × 8–10 mm, erect, ovate, apically 2-dentate, basally 3-dentate, compressed, black or dark brown, the surface minutely pitted.

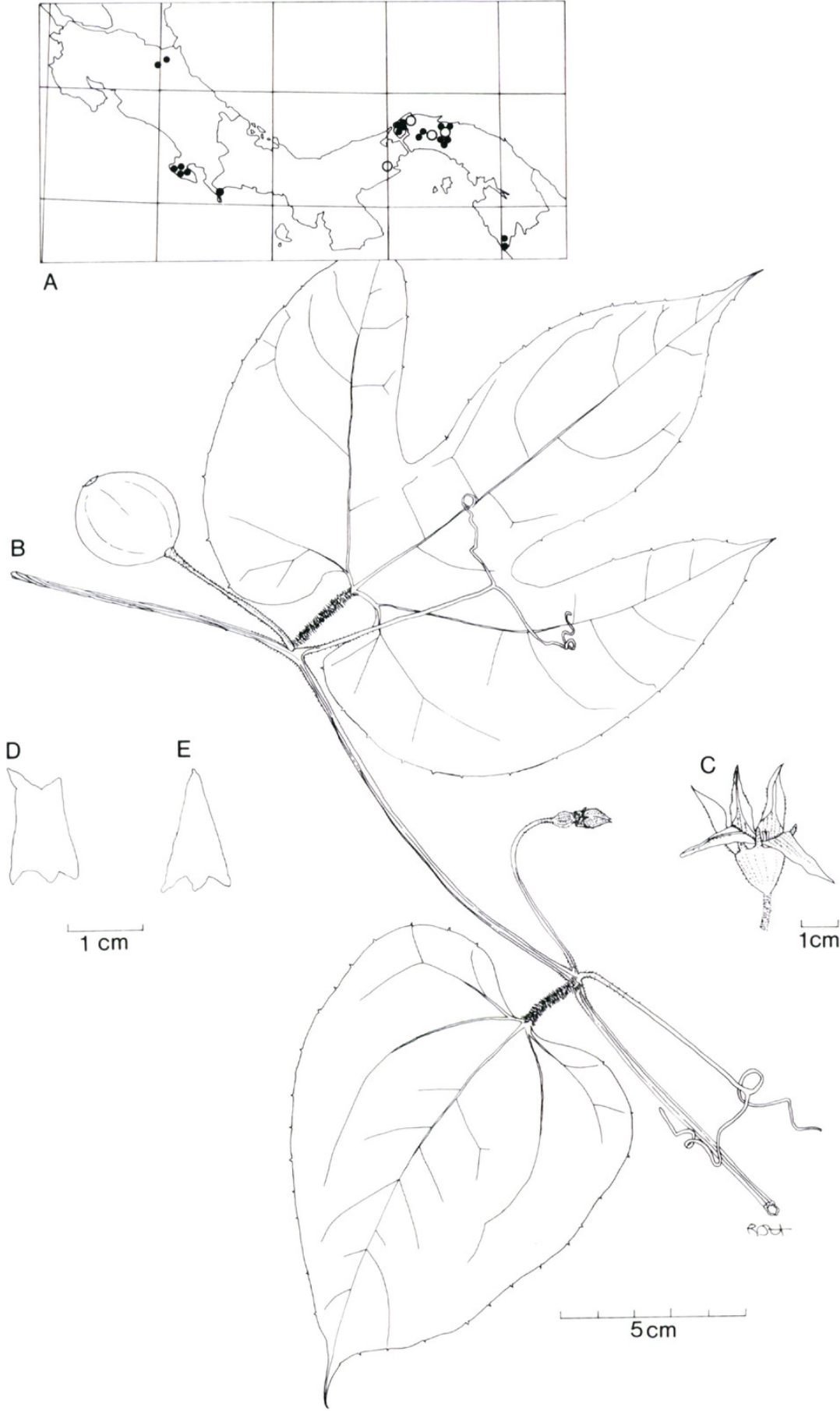
*Selysia bidentata* occurs in disturbed forest near roads, streams and trails from 100 to 850 m elevation. A single male flower has been seen (*de Nevers et al.* 5462, MO), but it has not been dissected.

*Selysia bidentata* is easily distinguished from other species of *Selysia* by its apically bidentate seeds. All other described species in the genus have arrowhead-shaped seeds, with three basal teeth and a single apical point. The epithet “bidentata” refers to this unusual seed shape.

*Selysia bidentata* is morphologically most similar to *S. smithii* of Andean South America. The two species both have densely villous petioles and sparsely pubescent fruits. Both species also have occasional (in *S. smithii* usually) simple leaves. The petiole pubescence of *S. bidentata* is much longer and looser than that of *S. smithii* and the trichomes are straw-colored rather than ferruginous. The leaves of *S. smithii* are thick and coriaceous, while those of *S. bidentata* are thinner and more membranous in texture.

The only other Mesoamerican species of *Selysia* is *S. prunifera*, which is easily distinguished from *S. bidentata* by its seed shape and longer, glabrous or minutely pubescent petioles. The petioles of *S. prunifera* exceed 3 cm in length, while those of *S. bidentata* are usually less than 2.4 cm (with rare exceptions).

**Paratypes.** PANAMA. **Colón:** trail and streamside where Río Escandaloso meets Río Boqueron, 300 ft., 13 Apr. 1978, *Hammel* 2487 (K, MO); along Río Escandaloso and Río Boqueron near their juncture, 28 Apr. 1978, *Hammel* 2740 (MO). **Comarca de San Blas:** Cerro Brewster, premontane rainforest, 850 m, 21 Apr. 1985, *de Nevers et al.* 5462 (MO). **Panamá:** Cerro Jefe to La Eneida, ca. 3,100 ft., 17 Jan. 1968, *Dwyer et al.* 8207 (MO); Cerro Campana, summit and upper trail, 19 Sep. 1975, *Witherspoon & Witherspoon* 8469 (MO).





KEY TO THE SPECIES OF *SELYSIA*

- 1a. Petioles short-pubescent to glabrous, the trichomes to 0.5 mm long.
  - 2a. Leaves with thick tufts of white trichomes in axils of main veins immediately above the petiole insertion point; leaf blades cordate, unlobed ..... 2. *S. cordata*
  - 2b. Leaves without tufts of trichomes in axils of main veins; leaves variously cordate to trilobed ..... 1. *S. prunifera*
- 1b. Petioles villous with long, uniseriate trichomes, the trichomes to 5 mm long.
  - 3a. Petiole trichomes 4–5 mm long, loose, straw-colored; leaves membranous ..... 4. *S. bidentata*
  - 3b. Petiole trichomes 2–3 mm long, very dense, ferrugineous; leaves coriaceous... 3. *S. smithii*

SYNOPSIS OF *SELYSIA* COGNIAUX IN A. DC., MONOGR. PHAN. 3: 735. 1881.

- 1. *Selysia prunifera* (Poeppig & Endlicher) Cogniaux in A. DC., Monogr. Phan. 3: 736. 1881. *Melothria prunifera* Poeppig & Endlicher, Nov. Gen. Sp. Pl. 2: 55, t. 174. 1838. TYPE: Peru. Loreto: Maynas, *Poeppig* 2265 (holotype, W).

*Distribution.* Costa Rica to Amazonian Peru.

- 2. *Selysia cordata* Cogniaux in A. DC., Monogr. Phan. 3: 736. 1881. TYPE: Colombia. Boyacá: Muzo, *Goudot s.n.* (holotype, P).

*Distribution.* Northern Colombia in the departments of Santander and Boyacá.

- 3. *Selysia smithii* (Standley) C. Jeffrey, Kew Bull. 25(2): 235. 1971. *Cayaponia smithii* Standley, Publ. Field Mus. Nat. Hist. Bot. Ser. 13(6): 380. 1937. TYPE: Peru. Loreto: Río Morona, *Killip & Smith* 29162 (holotype, US).

*Distribution.* Andean Colombia to Peru.

- 4. *Selysia bidentata* R. J. Hampshire. TYPE: Panama. Comarca de San Blas: El Llano–Cartí road, *de Nevers* 3855 (holotype, BM).

*Distribution.* Central Panama.

*Acknowledgments.* We thank C. Jeffrey (K) for advice, N. K. B. Robson (BM) for help with the Latin diagnosis, and an anonymous reviewer for helpful comments as to relationships in the genus.

←  
Figure 1. *Selysia bidentata* R. J. Hampshire. —A. Map of Costa Rica and Panama showing the distribution of *S. bidentata*, solid circles, and *S. prunifera*, open circles. —B. Habit of *S. bidentata*, with female flower and fruit (from *de Nevers* 3855, BM). —C. Male flower (from *de Nevers et al.* 5462, MO). —D. Seed of *S. bidentata* (from *de Nevers* 3855, BM). —E. Seed of *S. prunifera* (from *Kernan* 692, BM).



Knapp, Sandra and Hampshire, R. J. 1994. "A new species of *Selysia* (Cucurbitaceae) from Mesoamerica and a synopsis of the genus." *Novon a journal of botanical nomenclature from the Missouri Botanical Garden* 4, 35–37.  
<https://doi.org/10.2307/3391696>.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/14664>

**DOI:** <https://doi.org/10.2307/3391696>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/20904>

#### **Holding Institution**

Missouri Botanical Garden, Peter H. Raven Library

#### **Sponsored by**

Missouri Botanical Garden

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.