

A new species, *Herbertia crosae* (Iridaceae), from Uruguay

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Roitman, G. G. (Cátedra de Jardinería. Facultad de Agronomía, Universidad de Buenos Aires, Av. San Martín 4453. 1417. Buenos Aires, Argentina; email: roitman@mail.agro.uba.ar) & A. Castillo (Jardín Botánico de Ezeiza, Jujuy 1037, 1804, Ezeiza, Prov. de Buenos Aires, Argentina; e-mail: ezeizabotgard@hotmail.com). A new species, *Herbertia crosae* (Iridaceae), from Uruguay. *Brittonia* 56: 361–364. 2004.—***Herbertia crosae*** (Iridaceae) is described from the stony grasslands of northwestern Uruguay. The new species resembles *Herbertia lahue* but can be easily distinguished by the narrower leaves, slender habit, the smaller pale lilac flowers, the presence of yellow spots at the base of the tepals, the red, adpressed hairs along the filament column, the presence of filaments free at the apex, the channeled style arm, the recurved secondary divisions of the style arm, and the smaller fruits. A key to the species of the genus is provided in which five species are now recognized.

Key words: Iridaceae, *Herbertia*, North America, South America, Uruguay.

Herbertia Sweet is a small genus of Iridaceae in temperate North and South America, with large, obovate outer tepals; smaller, oblanceolate inner tepals, the staminal column narrower above; linear anthers; and a bifid style. According to Goldblatt (1977), six species can be included in this genus: *Herbertia lahue* (Molina) Goldblatt (with 3 subspecies); *H. tigridioides* (Hicken) Goldblatt; *Herbertia pulchella* Sweet; *H. amarorum* (C. H. Wright) Goldblatt (now considered conspecific with *H. pulchella* Sweet; Ravenna, 1989); *H. brasiliensis* Baker (now *Kelissa brasiliensis* (Baker) Ravenna; Ravenna, 1981a); and *H. hauthalii* (O. Kuntze) Goldblatt (now *Cypella hauthalii* (Kuntze) R. C. Foster; Ravenna, 1981b). Ravenna's revision (1989) included only four species: *H. tigridioides*, *H. lahue*, *H. pulchella*, and a new species, *H. quaraimana* Ravenna. These species inhabit grasslands from Uruguay to Chile; another subspecies, *H. lahue* subsp. *caerulea* (Herb.) Goldblatt, occurs in the southern United States.

Several years ago, Orfeo Crosa collected

some bulbs in northwestern Uruguay which were sent to one of the authors (AC) and were identified as belonging to a new species. Additional collections made in 2002 by the first author allowed us to confirm the existence of this new taxon.

***Herbertia crosae* Roitman & A. Castillo, sp. nov.** (Figs. 1 & 2)

TYPE: URUGUAY. Artigas: Bella Unión, in grassy, stony places, 6 Nov 2002, G. Roitman & G. M. Tourn s.n. (HOLOTYPE: BAA 24931).

Ab *Herbertiae lahue* foliis angustis, floribus parvis lilacinis, base tepalorum colore luteo maculata, ciliis secus columnam staminum ruberis glanduliferis adpressis, styli ramis ut in *H. pulchella*, fructibus minoribus differt.

Herb, 8–22 cm high. Bulb subglobose, 15–20 mm wide, covered by dark-brown, membranous coats, prolonged upwards into a neck. Leaves 1–3, plicate, linear, at anthesis green, erect, 4–5 cm × 1–2 mm. Inflorescence a 1- or 2-flowered rhpidium; spathes green, the lower one 2–2.3 cm long,

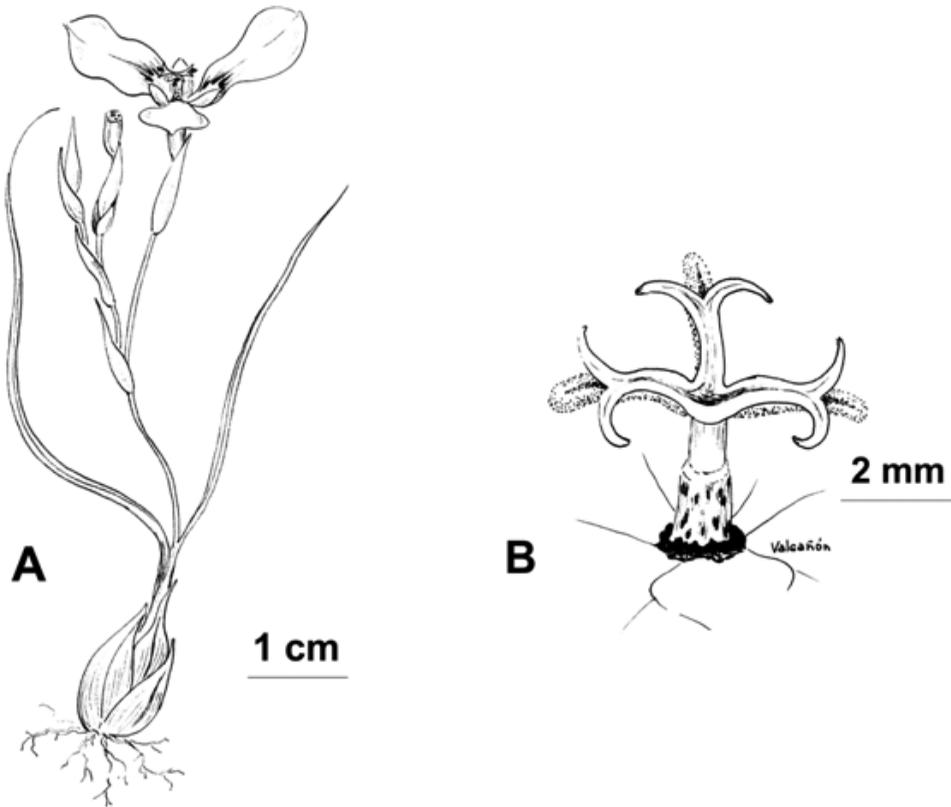


FIG. 1. *Herbertia crosae* (Roitman & Tourn s.n., BAA 24931, holotype). **A.** Habit. **B.** Detail of the staminal column and the stigma.

the upper 2.5–3 cm long. Flower pale lilac, radially symmetrical, 2.5–2.9 cm wide. Outer tepals obovate, 1.7–2.1 × 1–1.3 cm, with a yellow linear stripe at the base; inner tepals oblanceolate, 3–4 × 2–3 mm, pale lilac with a 2 mm long yellow medial stripe. Filaments united in a column, 3–4 mm long, pale lilac with red, adpressed hairs along the column, free apically for 1 mm; anthers linear, curved at dehiscence, 4–5 mm long. Ovary 4.5–5 × 2.5 mm. Pollen yellow. Style arms channeled, pale lilac, 4 mm long, bifid for 2.5 mm, the divisions divaricate, recurved, apically stigmatose. Capsule oblong, 9 × 5 mm. Seeds obovate, slightly angled, pale brown, 1.5 × 1 mm.

Cytology.— $2n = 14$ (L. Stiefkens & G. Bernardello, pers. comm.; based on seeds taken from the holotype). *Herbertia lahue*

was cited to have $2n = 42$ (Goldblatt & Takei, 1997; Baeza et al., 2001)

Distribution, ecology, and flowering patterns.—Near Bella Unión, Dpto. Artigas, Uruguay. It was found growing in stony grasslands with *Herbertia lahue* ssp. *amena*. *Herbertia quareimana* Ravenna, with large violet flowers, also occurs in the area. The flowers of *Herbertia crosae* open during early afternoon and remain open until the evening; this contrasts with the flowers of the other species of the genus that open early in the morning and close by midday.

Etymology.—We dedicate this species to Dr. Orfeo Crosa of the Facultad de Agronomía, Universidad de Uruguay, Montevideo, Uruguay, a specialist in Alliaceae, and first collector of this novelty.

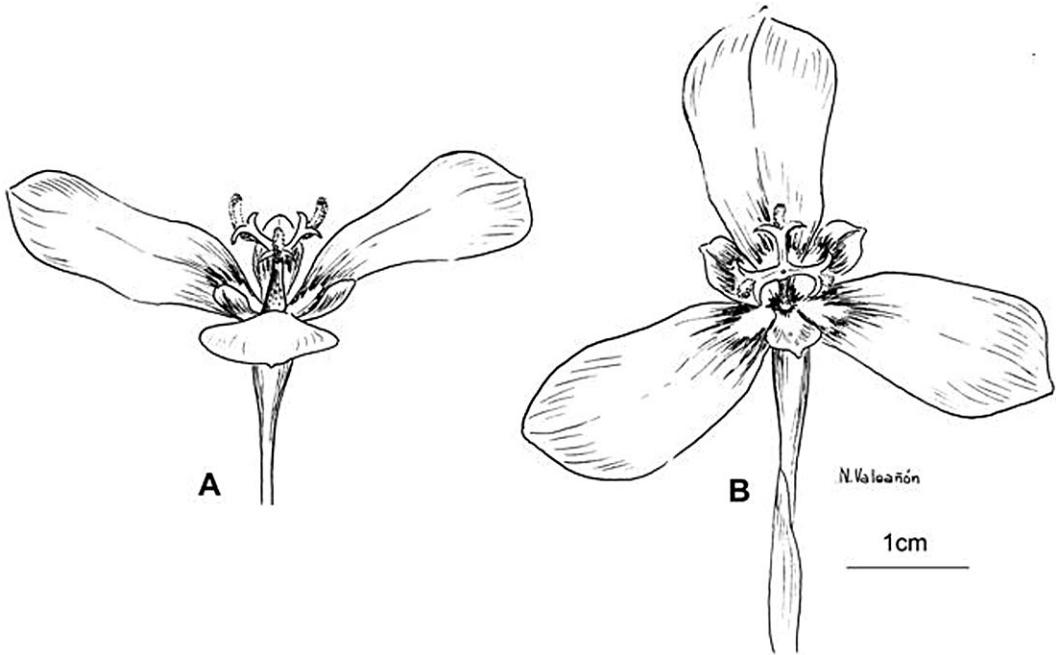


FIG. 2. *Herbertia crosae* (Roitman & Tourn s.n., BAA 24931, holotype). **A.** Lateral view of the flower. **B.** Upper view of the flower.

This new species resembles *Herbertia lahue* (Molina) Goldblatt, which is the same height, but can be easily distinguished by the narrower leaves (1–2 mm vs. 6–10 mm), slender habit, the smaller pale lilac flowers (2.5–2.9 cm wide vs. 3.5–4 cm wide) the presence of yellow spots at the base of the tepals (vs. dark violet spots), the

red, adpressed hairs along the filament column (vs. the absence of hairs), the filaments free at the apex (vs. filaments entirely united forming a column), the channeled style arm (vs. style arms not channeled), the recurved secondary divisions of the style arm, and the smaller fruits (9 mm vs. 14–18 mm long).

Key to the species of *Herbertia*

1. Filaments free at the apex for 1–4 mm, anthers attached to the filaments. Style arms channeled. Secondary divisions of the style arms recurved.
 2. Filaments free for 3–4 mm long free at the apex. Flowers blue. Outer tepals with a white streak from base to half of its length *H. pulchella*
 2. Filaments free at the apex for 1 mm. Flowers violet. Outer tepals without a white streak.
 3. Flowers 55–65 mm wide, violet, the claws whitish with black-violet spots. Inner tepals dark violet; filament column smooth *H. quareimana*
 3. Flowers 25–29 mm wide, pale lilac. Inner tepals lilac with a yellow stripe; filament column with red, adpressed hairs *H. crosae*
1. Filaments entirely united forming a column, the anthers attached directly to the filament column. Style arms not channeled. Secondary divisions of the style arms straight.
 4. Style arms horizontal. Secondary divisions of the style as long as the style arm. Flowering in the summer and autumn *H. tigridioides*
 4. Style arms ascending. Secondary divisions of the style shorter than the style arm. Flowering in the spring *H. lahue*

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