

Vriesea uxoris Utley, sp. nov. (Fig. 1)

A. V. leucophylla L. B. Smith et *V. hainesiorum* L. B. Smith, quibus similis, bracteis florigeris brevioribus sepalisque longioribus differt.

Plants acaulescent, epiphytic. *Leaves* in a subspreading to subsending rosette, 33–44 (48) cm long; *blades* (18) 20–24 (36) cm long and 3.6–5 cm wide, green suffused with maroon to entirely maroon, ligulate to broadly triangular, apex acute to acuminate; *sheaths* (12) 15–17 (19.5) cm long and 6–8.4 cm wide, obovate, castaneous, usually with a coating of cinerous trichomes. *Scape* decurved, (34) 38–44 cm long and about 0.4 cm in diam; *bracts* (13) 17–23 (33) cm long and 3–4.2 cm wide, the blade and sheath portions not well differentiated, ascending to erect, becoming divergent or spreading near apex, enfolding the scape in the sheath area, usually red-pink, at times suffused with green or rarely entirely green, ligulate to subligulate or broadly triangular, apex acute. *Inflorescence* with (8) 10–13 (17) lateral branches, pendent, 21–38 cm long and about 17–30 cm diam, pyramidal, rachis glabrous, occasionally with numerous castaneous punctulae, green to strongly suffused with red or maroon; *primary bracts* spreading, 11–15 (21) cm long and 2.8–3.6 cm wide, pink to peach or salmon-colored, occasionally with fine longitudinal maroon lines, subligulate to broadly triangular, apex acute to acuminate. *Lateral branches* spreading, (0.9) 1.2–1.7 cm long, collaterally 2-flowered, peduncles 0.9–1.4 cm long, rachis wanting to 1.3 cm long. *Flowers* on pedicels 0.3–0.8 cm long; *floral bracts* 1–1.4 cm long and 1.2–1.7 cm wide, green or yellow-green, drying to brown, even to obscurely nerved, frequently rugulose especially distally, keeled, obovate to suborbicular, apex rounded or truncate, minutely apiculate or torn-incised; *sepals* 2.2–3 cm long and 1–1.5 cm wide, green drying to pale brown with a castaneous base, coriaceous, obovate, the apex rounded to truncate, occasionally minutely apiculate or torn-incised; *petals* 3–3.9 cm long and 0.8–0.9 cm wide, green, obovate, appendages 0.6 cm long and 0.2 cm wide; *stamens* forming a hood over the style, filaments 1.6–1.8 cm long, anthers 0.4–0.5 cm long; *ovary* 0.4 cm long and 0.3 cm diam, style 2.3 cm long, capsules 3.8–4 cm long and about 0.8 cm diam, broadly fusiform, castaneous.

TYPE: COSTA RICA. Border of CARTAGO and SAN JOSE PROV.: bog and surrounding thickets about 15.9 km S of El Empalme on the Interamerican Highway, 4 Jul 1976, *Wilbur 19892* (HOLOTYPE: DUKE!, photographs CR, US).

Phenology: Flowering Apr and May.

Distribution and habitat: Known only from the Cordillera de Talamanca in Costa Rica at 2500–2600 m in the montane rainforest life zone.

Vriesea uxoris is a distinctive montane species characterized by green to maroon, unmarked leaves, a lax, pendent inflorescence with a comparatively slender rachis and peach or salmon-colored primary bracts. These characters in conjunction with the long sepals (2.2–3 cm) and floral bracts (1–1.4 cm) consistently much shorter than them immediately separate *V. uxoris* from the remainder of the thecophylloid vrieseas. *Vriesea uxoris* resembles *V. leucophylla*, *V. vietoris* and *V. hainesiorum* in its pendent inflorescence, brightly colored primary bracts and green, diurnal flowers. However there are numerous differences in leaf shape, inflorescence and floral characters, and habitat preference. The leaf blades of *V. leucophylla*, *V. hainesiorum* and *V. vietoris* are narrower (1–3 cm) and generally triangular in outline. Moreover, in the latter three taxa the floral bracts are equal or subequal to the sepals at anthesis and the primary bracts are pink to red in color, while the floral bracts of *V. uxoris* are not more than one-half as long as the sepals and the primary bracts are peach to salmon in color. The montane rainforest habitat of *V. uxoris* contrasts with the lower and frequently drier pre-

montane habitats of the other pendent-inflorescenced taxa. *Vriesea uxoris* does not occur sympatrically with these species.

Additional specimens examined: COSTA RICA. Border of SAN JOSE and CARTAGO PROV.: about 17 km SE of El Empalme on the Interamerican Highway, 6 Apr 1974, *Utley & Utley 811* (CR), 812 (MO), 843 (DUKE); 17 Mar 1975, *Utley & Utley 2004* (NOLS), 2005 (DUKE), 2006 (NOLS); 27 Oct 1975, *Utley & Utley 3202* (CAS); 9 May 1976, *Utley & Utley 4755* (US), 4756 (F).

***Vriesea viotoris* Utley, sp. nov. (Fig. 2)**

A *V. leucophylla* L. B. Smith valde affini foliis haud pictis, bracteis primariis subscalariformibus vaginis angustioribus, sepalis saturate rubris differt.

Plants acaulescent, epiphytic. *Leaves* in a spreading to subascending rosette, 29–40 cm long; *blades* 19–29 cm long and 1.4–2.6 cm wide, green occasionally suffused with maroon at margins and tips, densely pubescent on abaxial surface, subligulate to long-triangular, apex attenuate or acuminate; *sheaths* 10–12.2 cm long, 3.4–5.2 cm wide, brown with a dense mosaic-like coating of castaneous-centered trichomes usually suffused with purple in the distal half, especially near the margins, elliptic to ovate in outline. *Scape* strongly decurved, 25–44 cm long, 0.3–0.5 cm diam; *bracts* erect, divergent distally, 11–18 cm long, blades 7.4–14.4 cm long and 0.8–1.7 cm wide, lowermost green, middle and upper suffused deep red-pink to crimson, subligulate to long-triangular, apex attenuate to acute, sheaths clasping-erect, 2.2–4.2 cm long and 1.5–2.4 (3.3) cm wide, suffused red-pink to crimson, ovate. *Inflorescence* with (12) 14–20 (25) lateral branches, pendent, 20–34 cm long and 10–14 (19) cm diam, subcylindrical to subconical, rachis deep reddish-pink to crimson; *primary bracts* scalariform-spreading, 8.5–13.5 cm long, blades (4.8) 6.4–9.2 cm long and 0.7–1.5 cm wide, deep red to crimson, subligulate to long-triangular, apex acute to attenuate; *sheaths* 2.7–4.3 cm long and 2.0–2.4 cm wide, deep red or crimson, ovate in outline. *Lateral branches* spreading, 1–1.8 cm long, subcollaterally 2-flowered, peduncles 0.7–1.5 cm long, rachis 0.2–0.4 cm long. *Flowers* sessile or pedicels up to 0.3 cm long; *floral bracts* 1.6–2 cm long and 1.5–2 cm wide, subcoriaceous, deep pink to crimson, minutely pitted, or brown-punctate adaxially, lepidote adaxially, oblong to elliptic or ovate-truncate, apex obtuse to broadly rounded and minutely apiculate, entire or torn-incised up to one-half the length at anthesis, keel inflated; *sepals* 1.6–1.9 cm long and 1.2–1.5 cm wide, coriaceous, keeled, glabrous abaxially, lepidote adaxially, strongly suffused with red at anthesis, elliptic to obovate, apex obtuse to rounded; *petals* 2.8–3 cm long and 0.8–1 cm wide, pale greenish-white, obovate to subpandurate, appendages 0.5–0.6 cm long and 0.2 cm wide; *stamens* forming a hood over the style, filaments 2.0–2.1 cm long, anthers 0.4 cm long; *ovary* 0.3–0.4 cm long and 0.4 cm in diam, style 1.5–1.7 cm long.

TYPE: COSTA RICA. Border of CARTAGO and SAN JOSE PROV.: pasture along the Interamerican Highway, 200 yards SE of Casa Mata in the Cordillera de Talamanca S of Cartago, 1800–1900 m, 9 May 1976, *Utley & Utley 4747* (HOLOTYPE: DUKE!, photographs CR, US).

Phenology: Flowering Apr and May.

Distribution: Known only from the northern part of the Cordillera de Talamanca in Costa Rica in the lower montane wet forest at 1800–2100 m elevation.

The features which characterize *V. viotoris* are its unbanded leaves, pendent, many-flowered inflorescence (14 or more flowers), subscalariform primary bracts and floral bracts which are equal or subequal to the brightly colored sepals. The flowers are diurnal, greenish-white, tubular and weakly zygomorphic. *Vriesea viotoris* is very similar in general appearance to both *V. leucophylla* and *V. hainesiorum* but differs from them in characters mentioned above and in the