

**DIFFICULTIES IN  
CLASSIFICATION OF  
HELICONIA**



*Heliconia schumanniana* Loes var. *basirubra* Loes



9949  
9949  
cm. 1 2 3 4 5  
in. 1 2

**Typus!**

E. ULE. Herbarium Brasiliense.  
Amazonas-Expedition.  
No. 9185  
*Heliconia Ulcra* Lou. & G.  
*Heliconia* *Bohl. subulcra* *Bohl. ulcra*

P



9940  
9940

E. ULE. Herbarium Brasiliense.

Amazonas-Expedition.

No. 9183.

*Heliconia aureo-rosea* Loe. n. sp.

H. Klotzsch & Schell. unter gleich. Name. falls also vorkommt.  
Rio Arica. Sp. Anker 1911.



9948  
9949

Dr. A. Weberbauer, Flora von Peru.

Muscat.  
No. 3703 Name: *Heliconia Schummariana* Loes.  
var. *a. basistuba* Loes. nov. var.  
*Heliconia*  
Blumenfarbe: gelb Staub i. d. unteren Hälfte rot







No. 10000  
 Date of collection  
 Locality  
 Collector(s)  
 No. of specimens  
 No. of plants

Name of plant  
 Family



Botanical description  
 Fruit  
 Wood  
 Bark  
 Leaves  
 Flowers  
 Foliage  
 Other



Date of mounting  
 Mounter(s)  
 No. of sheets  
 No. of plants



mm long, yellow, arachnoid distally on sepal margins, indument grading into sparsely hirsute proximally, tube 6–7 mm long; staminode slightly to markedly convex, narrowly triangular, oblong or obovate, acute to truncate at apex, 9.8–15 × 1.9–2.0(–4.5) mm. Fruit c. 8 × 11 mm; pyrenes 5.5–6 × 5.5–6 mm.

**Los Ríos:** Río Palenque Science Center at Km 56 of the Quevedo-Santo Domingo Road, 200 m, GENTRY 9913 (MO). **Carchi:** Peñas Blancas c. 20 km below Maldonado along Río San Juan, 900–1000 m, MADISON et al. 4649 (SEL, mixed with *H. Harlingii*). Above Chical, c. 12 km W of Maldonado in the Río Blanco Drainage, 1300–1500 m, GENTRY & SCHUPP 26519 (MO, SEL). **Pichincha:** 15 km above San Miguel de los Bancos on road to Quito, 1620 m, MORALES & ABALO 298 (QCA, holotype). **Cotopaxi:** Trail to Facundo Vela 1–3 km S of El Corazón, 1300–1400 m, HARLING & ANDERSSON 19240 (GB). – No extra-Ecuadorian material seen.

*Heliconia sclerotricha* is closely related to *H. obscura*, which it resembles in the dull colours of the inflorescence, the coarse indument of the spathes, and in spathe anatomy and pollen morphology. It differs in its conspicuously cuneate leaf base, arachnoid rachis indument, scarious spathe margin, distally arachnoid perianth, and shorter staminode. It is closely related also to *H. riopalenquensis*, which see for differences. Two Colombian species with undulate spathe margins obviously belong in this affinity: *H. intermedia* ABALO & MORALES (Phytologia 54:422–423, 1983) and *H. reptans* ABALO & MORALES (Phytologia 51:52–53, 1983). None of the types has been available, but according to the descriptions, *H. intermedia* differs in having spathes hairy inside, and *H. reptans* in having a much longer and wider staminode.

The paratype (GENTRY 9913), cited in the original description of *H. obscura*, belongs to *H. sclerotricha* in the present sense.

One collection from the vicinity of Chical (Carchi; GENTRY & SCHUPP 26347, MO, SEL) differs from the rest of the material in its rounded leaf base, denser inflorescence indument, nearly glabrous pedicels, and small staminode. It is tempting to interpret this as a hybrid with *H. Harlingii*, but pollen seems normal and one of the specimens is richly fruiting.

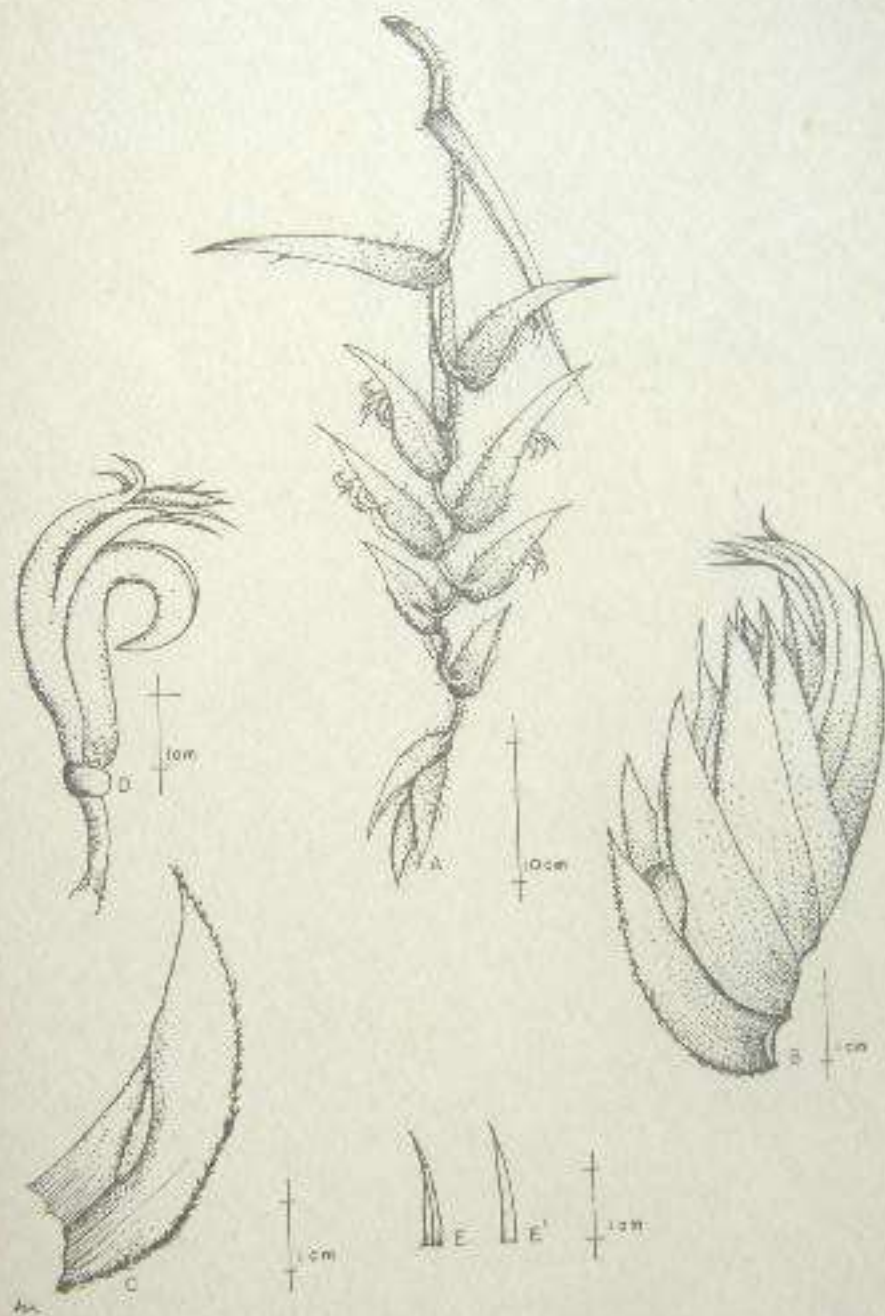
#### Doubtful Taxon

*Heliconia Willisiana* ABALO & MORALES, Phytologia 52:412–413 (1983). – Orig. coll.: MORALES & ABALO 297; Ecuador, Pichincha, 10 km below San Miguel de los Bancos on road to Santo Domingo, 960 m, 2 July 1982 (QCA holotype, MY; neither seen). – The types have not been available and I have seen no other material that matches the description. To judge from description and illustration, this is a member of sect. *Lanea*, characterized i.a. by its velvety leaf surface (papillose?) and long (50 mm), straight, greenish perianth.





**Heliconia brenneri**



***Heliconia peteriana***

40. *Heliconia Brenneri* ABALO & MORALES, *Phytologia* 52:392-393 (1983). - Figs. 8D, 9F.

Orig. coll.: MORALES & ABALO 308; Ecuador, Morona-Santiago, 15 km from Limón on road to Gualaceo, 1930 m, 6 July 1982 (QCA holotype; MY, US, isotypes, not seen).

Musoid plants 2-3 m tall, pseudostem 1-1.5 m. Leaf sheath pilose distally, reddish-tinged; petiole to 90 cm long,  $\pm$  arachnoid; leaf blade to 120  $\times$  35 cm, sparsely to densely arachnoid on midrib beneath, midrib reddish-tinged. Inflorescence distichous or, when old,  $\pm$  twisted, to c. 40 cm long with up to 14 spathes, spathe angle 145-150°, rachis red, densely hirsute with reddish hairs 2-4 mm long. Spathes red, densely reddish-hirsute outside, glabrous inside, proximal spathe 15-19  $\times$  1.6-2.1 cm, middle spathe 8.6-9.3  $\times$  1.7-2.0 cm. Cincinnus many-flowered; bracteoles persistent, subchartaceous when dry, densely hirsute or villous on keel, sometimes glabrous on the sides, 3.4-4.7 cm long; pedicels glabrous to densely hirsute, 1.4-1.7 cm long in flower. Flowers largely hidden by the spathes at anthesis; ovary glabrous, c. 8  $\times$  4 mm; perianth markedly parabolic, somewhat gibbous, 36-44 mm long, glabrous or  $\pm$  hirsute, bright yellow at tip, gradually paler towards base, tube c. 11 mm long; staminode convex, narrowly triangular, subobtuse at tip, c. 15-17  $\times$  1.4-2.6 mm. Fruits not seen, 20  $\times$  15 mm according to protologue.

**Morona-Santiago:** 15 km from Limón on road to Gualaceo, 1930 m, MORALES & ABALO 308 (QCA, holotype). 9-10 km SE of San Juan Bosco, 1540-1600 m, GENTRY et al. 30862 (GB, MO). Vicinity of Indanza, 1300-1500 m, HARLING & ANDERSSON 12783 (GB). - Known only from this area.

The above description was drafted mainly from the HARLING and GENTRY collections, both of which have a pendent inflorescence. They agree with the type collection in floral characters and in indument structure, but the type was said to have an erect inflorescence, and differs in having hirsute pedicels and perianths. The inflorescence depicted in the protologue, in an erect position, is an undeveloped one, but it seems improbable that its thin rachis would be capable to hold erect an inflorescence of 13 spathes, which is the maximum number given.

*Heliconia Brenneri* exhibits a puzzling mixture of characters. It is closely similar to *H. Dielsiana* in stature and inflorescence habit, but flowers, staminodes, and pollen grains are closely similar to those of *H. vellerigera*. The conspicuous reddish indument may be regarded as intermediate between the two species. A hybrid origin is contradicted by perfectly normal pollen, a character which may not be decisive, however. Both *H. Dielsiana* and *H. vellerigera* are found in the area, but are normally separated in altitude.











15. *Heliconia subulata* R. & P. ssp. *subulata*. – Fig. 3G.

*Heliconia subulata* RUIZ & PAVÓN, Fl. Peruv. Chil. 3:70–71, tab. 303 (1802). – Orig. coll.: PAVÓN s. n.; Peru, Huánuco, Chacahuasi, 1784 (MA lectotype, selected by ANDERSSON 1984; US, F fragment).

For full synonymy, see ANDERSSON 1985:87.

Cannoid plants 1–3 m tall. Leaf sheath glabrous or (rarely) ± arachnoid on flanks; petiole of ultimate leaf (0–)2.5–15(–22) cm, glabrous or subglabrous; leaf blade oblong with rather abruptly narrowing base, (28–)35–85 × (5.0–)6.2–21 cm in ultimate leaf, glabrous or ± arachnoid on midrib beneath. Peduncle 4–40 cm long. Inflorescence 6–20(–30) cm long with 4–11 spathes, spathe angle (35–)45–100°, rachis glabrous, or ± conspicuously arachnoid, especially on the flattened inner side. Spathes red (rarely greenish), glabrous or sparsely arachnoid, basal spathe 5.3–16(–22) × 0.4–1.3 cm, middle spathe 4.0–9.8 × 0.5–1.2 cm. Bracteoles glabrous or ± pilose on keel, rarely all over, 2.0–5.0 cm; pedicels glabrous or ± arachnoid, especially at base, 0.7–1.5 cm. Ovary glabrous or subglabrous, 4–8 × 3–5 mm; perianth slightly but usually rather distinctly uniformly curved, 35–50 mm long, yellow shading into green distally, glabrous or ± arachnoid, usually only on the keels of the adnate sepals; staminode plane or slightly convex, oblong to obovate or obcordate, usually shortly cuspidate, 2.8–7.8 × (0.6–)1.0–3.0 mm. Fruit 9–10 × 6–9 mm; pyrenes 6–8 × 4–6 mm.

**Napo:** Baeza-Lago Agrio Road, c. 114 km from Lago Agrio, 1750 m, ØLLGAARD et al. 35779 (AAU). **Zamora-Chinchipe:** Road under construction Zamora–Zumba, at Km 30 S of Finca Cruz-Kaya, 1400–1500 m, HARLING & ANDERSSON 13850 (GB). Loja-Zamora Road, Km 51, c. 1100 m, SPARRE 16353 (S). Along Río Valladolid between Valladolid and Río Molina, 1800–2000 m, STEYERMARK 54630 (F, NY, S). – E slopes of the Andes from N Ecuador to C Bolivia.

*Heliconia subulata* is recognized on its oblong, strikingly parallel-sided leaf blades, the somewhat curved flowers, the small scale-like staminode, and the arachnoid nature of the inflorescence indument. The second subspecies, ssp. *gracilis* (PETERS.) ANDERSS., is a lowland form occurring from C Bolivia south- and eastwards, mainly in the Paraná Drainage.

16. *Heliconia venusta* ABALO & MORALES, Phytologia 51:60–61 (1982). – Fig. 3H.

Orig. coll.: MORALES & ABALO 14; Colombia, Huila, El Gigante, 1700 m, 14 Sep. 1980 (COL holotype, MY, US; neither seen).

*Heliconia montana* ABALO & MORALES, Phytologia 54:426–427 (1983). – Orig. coll.: MORALES & ABALO 349; Colombia, Cauca, Km 80 on Popayán-La Gallera Road, 1900–2150 m, 12 Feb. 1983 (COL holotype, MY, US; neither seen).

Cannoid to zingiberoid plants 1.5–4 m tall. Leaf sheath glabrous or slightly arachnoid; petiole of ultimate leaf 0.7–14 cm long, glabrous; leaf blade 20–51 × 6.4–10 cm in ultimate leaf, glabrous on both sides. Peduncle obsolete, or up to 25 cm long. Inflorescence distichous, 10–27 cm long with 4–10 spathes, spathe angle 20–55(–75)°, rachis yellow or red, or yellow with red nodes, ± densely hirtellous or hirsute, at least on the flattened inner side, hairs with a long basal portion of thick-walled cells. Spathes red, sometimes yellowish at base and/or tip, sparsely but usually evidently hirsute or hirtellous, rarely subglabrous, basal spathe 9.8–26 × 0.8–1.5 cm (appendage excluded), middle spathe 5.5–12 × 0.6–1.4 cm. Bracteoles glabrous or subglabrous, 2.5–4.5 cm; pedicels glabrous to sparsely hirsute or villous, 0.8–1.6 cm. Ovary glabrous to sparsely hirsute, 6–8 × 4–8 mm; perianth straight or slightly curved, 38–60 mm long, glabrous or sparsely hirtellous or subarachnoid, yellow shading into green distally to entirely green; staminode convex to conduplicate, shouldered with shoulders sometimes markedly auriculate, with a long and distinct cusp, 5.2–10 × 2.0–5.0 mm. Fruit 11–14 × 8–9.5 mm; pyrenes 9–12 × 5.5–6.5 mm.

**Esmeraldas:** Esmeraldas-Muisne Road between Tonchigüe and Galera, HARLING & ANDERSSON 16679 (GB). Road Esmeraldas-Coronel C. Concha between Tabiazo and Coronel Concha, HARLING & ANDERSSON 16760 (GB). Road Rio Tiaone-Victoria S of Esmeraldas, SPARRE 15567 (S). **Pichincha:** Near Mindo, 1400–1600 m, ANDERSSON 1342 (GB, QCA, S). Old road Quito-Santo Domingo, El Volante, 1800 m, ASPLUND 10094 (S); Km 84–88, 1200–1350 m, DODSON et al. 7792 (SEL). New road Alóag-Santo Domingo, 6–20 km E of Tandapi, 1500–2000 m, BESSE 185 (QCA, SEL); Tandapi, 1500 m, SPARRE 14030 (S). **Chimborazo:** Vicinity of Huigra, c. 1200 m, ROSE & ROSE 22618 (NY, US); ASPLUND 15518 (S). **Cañar:** Road Cuenca-Guayaquil, between Ducur and Cochancay, 1600–1800 m, HARLING & ANDERSSON 14580 (GB). **Prov. unknown:** Sine loco, EGGERS 14130, 15222 (F). "Western Cordillera, 1600 m", RIMBACH 289 (US). Sine loco, FRASER s. n. (K). – Colombian Andes N to El Valle and Cundinamarca.

*Heliconia venusta* comprises a rather heterogeneous complex of morphotypes, varying in habit from cannoid to zingiberoid, in rachis indument from densely hirtellous all around to moderately hairy on the inner side only, and in flower colour from yellow shading distally into green to entirely green. The complex is demarcated against similar species by the thick-walled nature of inflorescence and flower trichomes, and by the distinctly shouldered staminode with prominent cusp.

17. *Heliconia vaginalis* BENTH. ssp. *vaginalis*. – Fig. 3I.

*Heliconia vaginalis* BENTH., Bot. Voy. Sulphur p. 171 (1844). – Orig. coll.: HINDS s. n.; Colombia, Nariño, Isla Gorgona (K holotype).







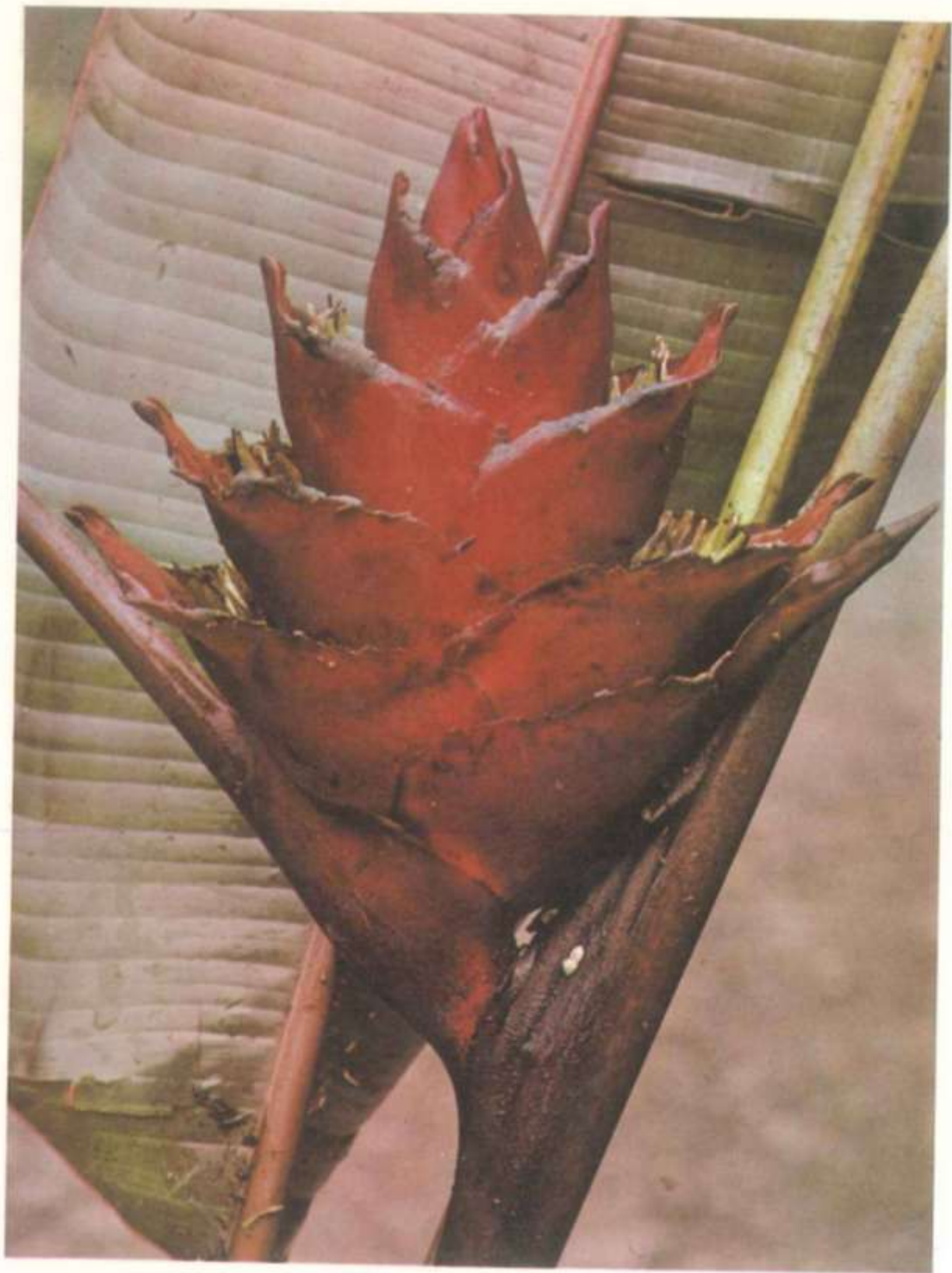












THE  
ARISTEGUIETAE  
BURLEANA  
GILBERTIANA  
SCARLATINA  
COMPLEX







Plate 2. Upper left: *Heliconia impudica* (HARLING & ANDERSSON 11593; photo GUNNAR HARLING). - Upper right: *H. Burleana* (ANDERSSON 1335). - Lower left: *H. velutina* (HARLING & ANDERSSON 16524). - Lower right: *H. Schumanniana* (HARLING & ANDERSSON 13069).





# HELICONIAS

Llamaradas de la selva colombiana

W. John Kress ♦ Julio Betancur ♦ Beatriz Echeverry



GUÍA DE CAMPO



### HELICONIA ARISTEGUIETAE

Abalo & G. Morales

◆ **Descripción:** Musoide, 2-4 m de altura. Hoja con pecíolo de 50-120 cm de largo y lámina de 70-140 por 30-40 cm. Inflorescencia péndula de 50 cm de largo. Raquis débilmente flexuoso, amarillo por lo general, y glabro a esparcidamente pubérulo. Espatas dísticas, 10-16 por inflorescencia, orientadas 80-90°, amarillas por lo común, glabras a esparcidamente pubérulas hacia la base y 10-14 por 4.5-5 cm. Flores resupinadas, blancas con márgenes verdes, y parabólicas.

◆ **Distribución:** Endémica de la vertiente oriental andina de Colombia (Boyacá, Cundinamarca y Meta). Límite entre los pisos tropical y premontano.





### HELICONIA BURLEANA

Abalo & C. Morales

◆ **Descripción:** Musoide, 2-4 m de altura. Hoja con pecíolo de 40-140 cm de largo y lámina de 70-160 por 25-40 cm. Inflorescencia erecta de 45 cm de largo. Raquis débilmente flexuoso, rojo, y glabro a pubérulo. Espatas dísticas, 8-12 por inflorescencia, orientadas 50-100°, rojas, glabras, y de 11-16.5 por 4-6 cm. Flores verde-pálido o blancas hacia la base y verdes hacia el ápice, glabras, y parabólicas.

◆ **Distribución:** Colombia y Ecuador. Presenta una distribución típicamente andina, encontrándose a lo largo de todas las cordilleras colombianas, de preferencia sobre los 1.500 m de altitud. Piso premontano y en los límites con el tropical y el montano bajo.



SEL); CROAT 38654, 38679 (MO); LØJTNANT & MOLAU 15718 (AAU, GB); ANDERSSON 1330 (S holotype, GB, QCA). **Guayas:** El Empalme on road Balzar-Quevedo, FAGERLIND & WIBOM 353 (S). Teresita 3 km W of Bucay, 270 m, HITCHCOCK 20542 (GH, US, NY). Above Hda La Elvira, c. 5 km W of Bucay, 500 m. LØJTNANT & MOLAU 15642 (AAU). Hills E of the Naranjal-Machala Road, 13 km S Naranjal, 50–150 m, HARLING & ANDERSSON 19287 (GB). **El Oro:** 13 km W of Piñas on new road to Santa Rosa, 950 m, DODSON et al. 9165 (MO, SEL). **Prov. unknown:** "Western Cordillera between Río Chimbo and Río Cañar", 200 m, RIMBACH 43 (US, with water colour). – Endemic.

10. *Heliconia scarlatina* ABALO & MORALES, *Phytologia* 51:58–59 (1982).

Orig. coll.: MORALES & ABALO 243; Colombia, Santander, Jordán Alto, 1400 m, 25 Oct. 1980 (COL, holotype, not seen).

*Heliconia Aristeguietae* ABALO & MORALES, *Phytologia* 54:414–415 (1983). – Orig. coll.: MORALES & ABALO 348; Colombia, Meta, Villavicencio, 950 m, 6 Feb. 1983 (COL holotype, MY, US; neither seen).

*Heliconia Gilbertiana* ABALO & MORALES, *Phytologia* 54:420–421 (1983). – Orig. coll.: MORALES & ABALO 335; Colombia, Putumayo, 19 km from Mocoa on road to Pasto, 1160 m, 13 Nov. 1982 (COL holotype, not seen).

Musoid plants 1–3(–4.5) m tall. Leaf sheath sparsely to richly arachnoid; petiole to 90 cm long, glabrous to richly arachnoid; leaf blade to 100(–150) × 40 cm, usually richly arachnoid on midrib beneath, rarely glabrous or subglabrous. Peduncle to 15 cm long. Inflorescence distichous or irregularly twisted, to 40 cm long with up to 13 spathes, spathe angle 65–90(–100)°, rachis red or scarlet, rarely glabrous or subglabrous, usually rather densely pilose, hairs with a persistent basal portion of thick-walled cells and an ephemeral distal portion of thin-walled cells, indument appearing arachnoid in young inflorescences, eventually hirtellous. Spathes scarlet to red, usually glabrous or subglabrous, sometimes ± distinctly pilose with hairs of the same kind as on rachis, margin often ± revolute with age, basal spathe 16–27 × 0.9–1.8 cm, middle spathe 6.9–13 × 0.9–1.6 cm. Bracteoles glabrous or inconspicuously arachnoid, 4.5–6.1 cm; pedicels glabrous or ± pilose at base, (1.3–)1.6–2.1 cm. Ovary bright yellow (to orange), glabrous or subglabrous, 4–6 × 3–5 mm; perianth markedly parabolic, somewhat inflated at base, (24–)26–40 mm long, glabrous or inconspicuously arachnoid along keels of adnate sepals, grass-green with base and tip ± extensively white or pale yellowish; staminode markedly convex, oblong or narrowly elliptic or obovate, emarginate at tip, or truncate to shortly cuspidate, 10–21 × 3.6–8.1 mm. Fruit 8–11 × 6–9 mm (when dry); pyrenes 7–10 × 4–6 mm.

**Zamora-Chinchipe:** Loja-Zamora Road, Km 48, c. 1400 m, SPARRE 16338 (S). – Colombian Andes S to Cauca in the west and S to Putumayo in the east, and N Peru.















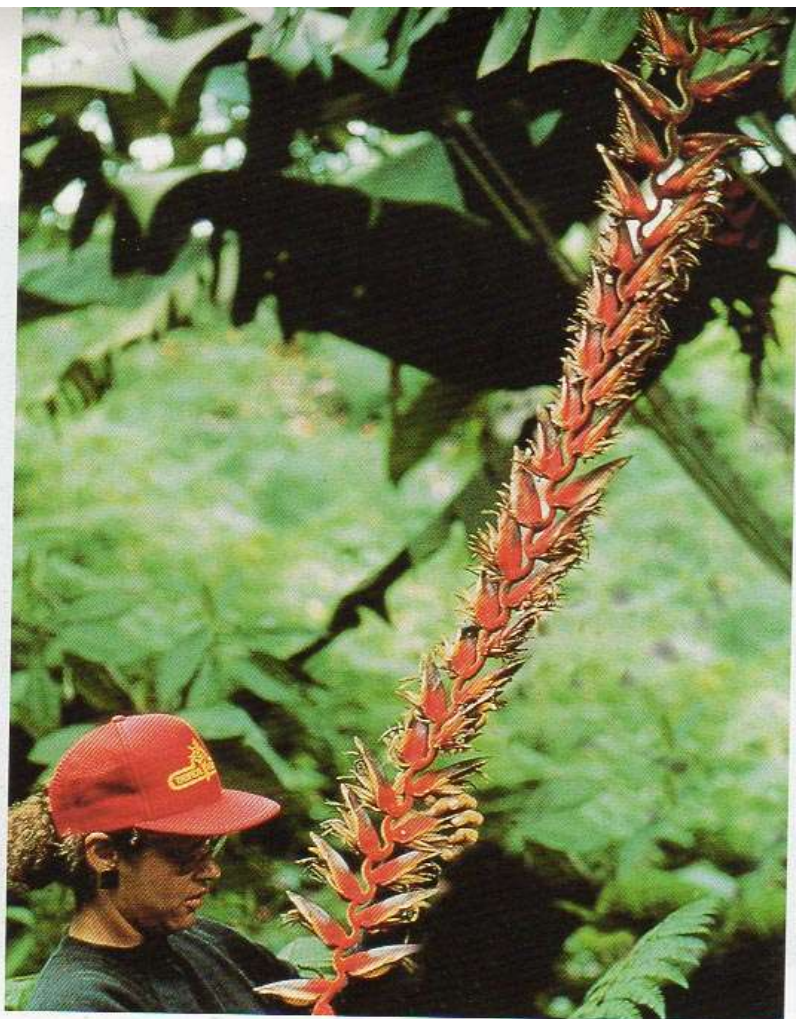
### HELICONIA COMBINATA

Abalo & G. Morales

♦ **Descripción:** Musoide, 4-7 m de altura. Hoja con pecíolo de 85-130 cm de largo y lámina de 140-230 por 40-48 cm. Inflorescencia péndula, hasta de 150 cm de largo. Raquis flexuoso, rojo, y pubescente con pelos rojizos. Espatas dísticas, 18-45 por inflorescencia, orientadas 140-160°, rojas, con márgenes que se vuelven secas y papiráceas, glabras a minutamente pubérulas, y de 8-10.5 por 7-10 cm. Flores amarillas, finamente pubescentes con pelos amarillos, y parabólicas a sigmoides.

♦ **Distribución:** Endémica de las vertientes occidental andina y caucana en Colombia (Antioquia, Chocó, Risaralda y Valle). Piso premontano.





### HELICONIA GIGANTEA

W. J. Kress & J. Betancur

◆ **Descripción:** Musoide, 11-13 m de altura. Las hojas permanecen rígidas y erectas, con pecíolos de 130 cm de largo y láminas de 300 por 70 cm. Inflorescencia péndula, hasta de 300 cm de largo. Raquis flexuoso, rojo y tomentoso, con pelos color crema. Espatas dísticas, hasta 70 por inflorescencia, orientadas 140°, rojas hacia la base, verde-rojizo hacia el medio y márgenes anaranjadas, papiráceas, pubescentes hacia la base y a lo largo de la quilla, distalmente glaucas, y de 14.5 por 10 cm. Flores rosadas hacia la base y amarillo-naranja hacia el ápice, pubescentes, glabras hacia la base, y parabólicas a sigmoides.

◆ **Distribución:** Endémica de la vertiente occidental andina en Colombia (Valle). Piso premontano.





## **HELICONIA TITANUM**

W. J. Kress & J. Betancur

◆ **Descripción:** Musoide, 8-10 m de altura. Hoja con pecíolo de 65 cm de largo, láminas rígidas y erectas, de 320 por 72 cm. Inflorescencia péndula, hasta de 135 cm de largo. Raquis flexuoso, rojo, y pubescente. Espatas dísticas, más de 30 por inflorescencia, orientadas 140°, rojas a purpúreas, pubérulas, y de 12 por 8 cm. Flores amarillo-naranja hacia la base y rojo-naranja hacia el ápice, y parabólicas a sigmoides.

◆ **Distribución:** Endémica de la planicie pacífica y de la vertiente occidental andina en Colombia (Valle). Pisos tropical y premontano.



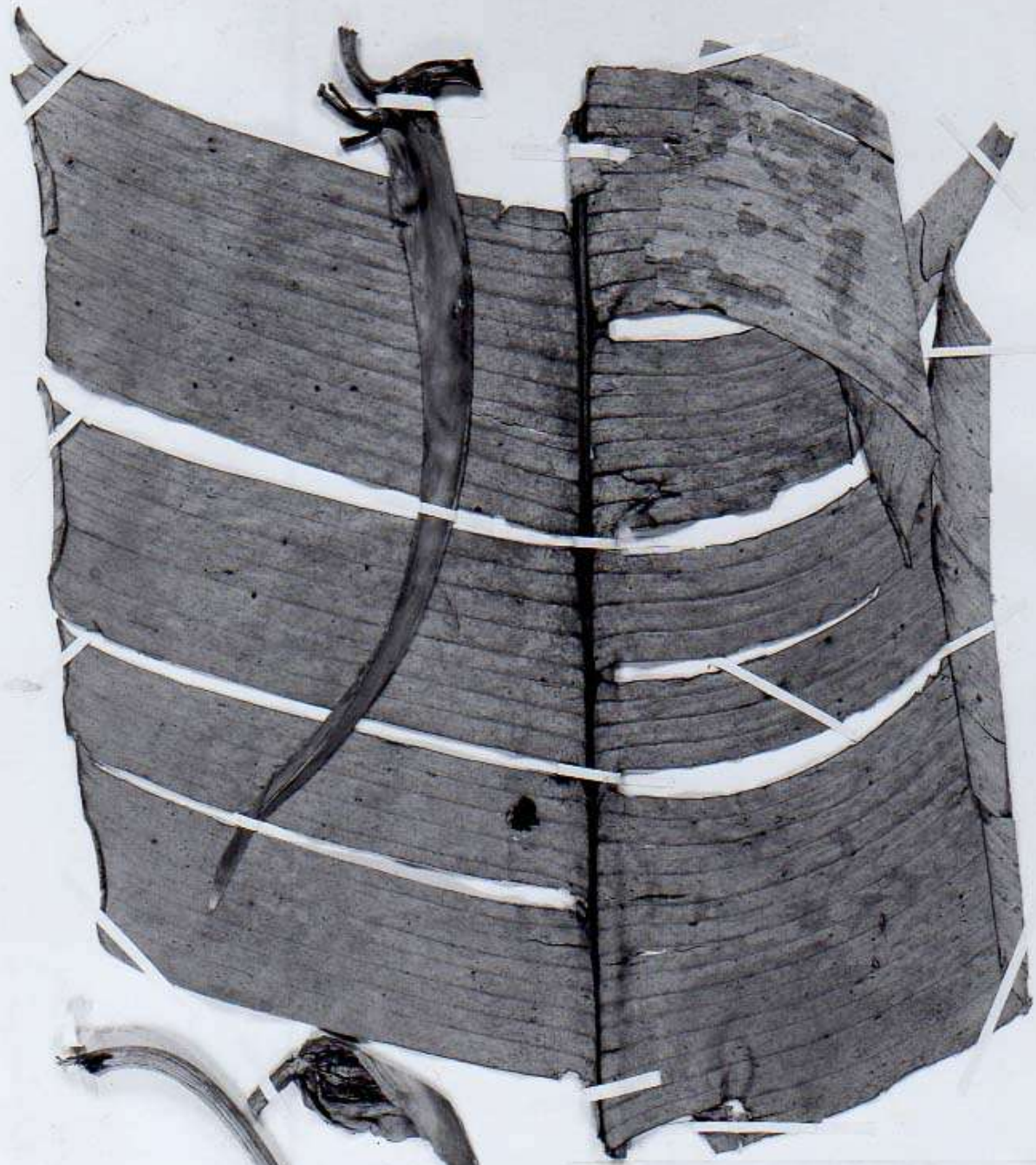






APOLOGIA  
PRO  
SPECIES MEA





Erica Heinrichs, Pflanzen aus Ecuador

No. 263 *Heliconia Diehrii* nov. spec.

Von Baños. Weg am Rio Verde Grande 1500 m  
hügelig im hoch. Blüte rot und gelb, Blätter 5 m  
lang: Petiolat



HELICONIA Diehrii  
Prototyp  
Det. Gilbert S. Daniels  
Hort. Acad. Sci., Pittsburgh, Pa.  
17. 12. 77

*Montbretia crocosmaeflora* HORT. LEM. in Flor. Mag. n. s. t. 472.

Verwildert in Mittel-Ecuador: Interandines Hochland: Prov. Chimborazo: Parroquia General Morales, 2800 m, blüh. 21. August 1933 (H. SCHIMPF in DIELS 689).

### Musaceae. Bearbeitet von TH. LOESENER.

*Heliconia Dielsiana* LOES. n. sp.

Herba 1,5—3 m. alta, pulcherrima et maxima. Folia maxima, 1—1,5 m. longa et 22—28 cm. lata, glabra, viridia, costa media in vivo rubra, subtus prominente, nervis lateralibus numerosis et densis, sub angulo 70°—90° patentibus, utrinque conspicuis. Inflorescentia maxima, circ. 1 m. longa (!), certe postea pendula, pedunculo 30—50 cm. longo, rhachi flexuosa, certe in parte superiore, dense brunneo-puberula vel pubescente, bracteis 16—20, inferioribus longissimis, ima circ. 45 cm. longa et iuxta basin circ. 4 cm. lata, subcymbiformibus, imis amplexicaulibus, superioribus subamplexicaulibus, in vivo cinnabarinis, gradatim brevioribus, summis 7—10 cm. longis, internodiis bractearum imarum circ. 4,5 cm. summarum circ. 3 cm. longis, prophyllis pallidis anguste lineari-subcymbiformibus, acutis, dorso medio subcarinatis, carina sub lente puberula vel subpubescente, circ. 4 cm. longis. Flores in bractearum axillis 3—11 glomerati; pedicellis 1—2 cm longis, in sicco bi- vel tricarinatis, isto floris primi uniuscuiusque glomeruli secundum carinam alteram vel unam puberulo; ovario sub anthesi 3—4 mm. longo, subobconico et obtuse subtrigono; tepalis circ. 3,5 cm. longis, in vivo ex cl. DIELS flavis, ex cl. HEINRICHIS rubris et flavis, exteriori posteriore reliquis linearibus paullo latiore, anterioribus intimis 2 paene usque ad apicem connatis et pseudolabellum apice bidentatum formantibus tepalo exteriori sublatius, omnibus iuxta basin leviter ad inflorescentiae basin versus curvatis; staminibus 5, circ. 3 cm. longis, antheris angustissimis, vix filamentum crassioribus, circ. 1 cm. longis, basifixis; staminodio brevissimo antheram subsessilem apiculatam simulante, circ. 5 mm. longo et 1 mm. lato; stylo filamentis paullulo longiore. Fructus obconicus et rotundato-trigonus, circ. 12 mm longus et latus, epicarpio carnosum, 3-pyrenus vel 3-coecus.

Incolis ex cl. ERICA HEINRICHIS: „Plantanillo“. Mittel-Ecuador: Ost-Kordillere: Prov. Tunguragua: Tal des Río Pastaza bei Río Negro, im Unterwuchs des Hochwaldes in etwa 1260 m Höhe ü. M. Mit einigen wenigen Blüten und zahlreichen jungen Früchten im September 1933 (DIELS 904 — Typus speciei!). Am Río Verde Grande in 1500 m Höhe (ERICA HEINRICHIS 263).

Species affinis *H. platystachydi* BAK., quae rhachi minus flexuosa, bracteis infimis multo brevioribus, tantum 16—18 cm. longis ab hacce recedit.

*Heliconia dasyantha* KOCH et BOUCHÉ var. *rosea* LOES. nov. var.

Rhachi in vivo flava, bracteis roseis, maioribus quam in typo, infimis 16—25 cm. longis, floribusque viridibus a typo recedens.

Mittel-Ecuador: Ost-Kordillere: Prov. Tunguragua: Tal des R. Pastaza bei R. Negro, Wald, 1270 m ü. M. Mit Blüten im September 1933 (DIELS 890).

### Orchidaceae. Bearbeitet von R. MANSFELD.

Vgl. dazu R. SCHLECHTER, Die Orchideenfloren der südamerikanischen Kordillerenstaaten. III. Ecuador. In Feddes. Beihefte Repertor. spec. nov. VIII (1921).

*Habenaria maculosa* LINDL. Gen. et Sp. Orchid. 309 (1835).

„Stengel fein braun punktiert. Blätter hellgrün. Blüten weiß, Labellum mit gelblichweißem Kallus. Säule gelblichweiß. Tracht unserer Platantheren. Mittel-Ecuador: Ost-Kordillere: Prov. Tunguragua: Tal des R. Pastaza bei R. Negro, blüh. 15. September 1933 (DIELS 1063).“

*Sobralia gloriosa* RCHB. f. Xen. Orchid. II, 178 (1854).

„Perianth hellpurpurn, Labellum mit purpurnen Längsstreifen.“ Mittel-Ecuador: Ost-Kordillere: Prov. Tunguragua: Tal des R. Pastaza, etwa 8 km westlich von Mera, Abhänge, 1150—1200 m ü. M., blüh. 15. September 1933 (SCHIMPF in DIELS 1099).

39. *Heliconia Dielsiana* LOES. in DIELS, *Biblioth. Bot.* 29 (116): 70 (1937). – Fig. 9E, Pl. 5.

Orig. coll.: DIELS 904; Ecuador, Tungurahua, Pastaza Valley at Río Negro, 1260 m, Sep. 1933 (Not located, probably destroyed at B). – Paratypes: HEINRICH 263, same area, Río Verde (M, NY).

*Heliconia andina* ABALO & MORALES, *Phytologia* 51:12–13 (1982). – Orig. coll.: MORALES & ABALO 216; Colombia, Putumayo, 16 km from Mocoa on road to Pasto, 1120 m, 20 Sep. 1980 (COL holotype, MY, US; neither seen).

Musoid plants 3–4 m tall, pseudostem 1.5–2.5 m tall. Leaf sheath glabrous, somewhat waxy; petiole to 80 cm long, glabrous; leaf blade to 200 × 40 cm, glabrous on both sides, midrib often purplish-tinged beneath. Inflorescence distichous, to 80 cm long with c. 25 spathes, spathe angle 110–155°, rachis red, glabrous to (usually) ± densely hirtellous, hairs reddish-brown. Spathes orange-red to red, lower ones mostly ± extensively green at tip, glabrous to finely hirtellous outside, glabrous inside, proximal spathe 24–25 × 1.8–2.2 cm, middle spathe 15–27 × 1.6–2.5 cm. Cincinnus many-flowered; bracteoles thin-papyraceous when dry, wilting at anthesis, glabrous, or finely hirtellous on keel, 4.0–6.2 cm long; pedicels glabrous or finely hirtellous along the angles, 1.2–2.0 cm in flower. Flowers largely exposed at anthesis; ovary glabrous or subglabrous, 6–10 × 5–9 mm; perianth distinctly sigmoid, 36–44 mm, yellow, glabrous or (rarely) finely hirtellous towards base, tube 5–10 mm; staminode slightly convex, narrowly oblong, truncate to bluntly cuspidate at apex, 4.1–8.3 × 1.2–1.9 mm. Fruit wholly exposed at maturity, 11–14 × 12–13 mm; pyrenes 8–12 × 6–9 mm.

**Tungurahua:** Pastaza Valley at the Agoyán Tunnel, 1550 m, HOLM-NIELSEN & JEPPESEN 335 (AAU); between Machai and La Victoria, ASPLUND 8617 (S); between Baños and Cashurco, 1300–1800 m, HITCHCOCK 21802 (GH, US); Colonia México, LUGO 659 (GB); Río Cashurco, 1400–1500 m, ØLLGAARD & BALSLEV 9307 (AAU); Río Margarjitas, PENLAND & SUMMERS 166 (F, GH). **Azuay:** Cuenca-Cola de San Pablo Road (valley of Río Paute), 570 m (?), BOEKE & LOYOLA 702 (GB, QCA). **Napo:** Río Quijos at Borja, 1650 m, HARLING 3851 (S). Baeza-Lago Agrío Road, 18 km from Baeza, 1650–1700 m, BALSLEV & MADSEN 10567 (AAU); 23 km from Baeza at Río Oyacachi, 1500 m, BALSLEV & MADSEN 10466 (AAU). Between Jondachi and Cosanga, ASPLUND 9517 (S). Baeza-Tena Road, Cosanga, 1375–1460 m, LUTEYN & LUTEYN 6738 (NY, QCA); Km 40 from Baeza, LØJTINANT & MOLAU 11503 (AAU). **Pastaza:** Colonia Játiva NE of Mera, LUGO 86 (GB). **Morona-Santiago:** Between Indanza and Limón, 1400 m, HARLING & ANDERSSON 12750 (GB). **Zamora-Chinchipe:** Loja-Zamora Road, 1400–1600 m, HARLING & ANDERSSON 13714 (GB); Km 48, c. 1400 m, SPARRE 16343 (S). S of Finca Cruz-Kaya at Km 30 of the Zamora-Zumba Road, 1400–1500 m, HARLING & ANDERSSON 13848 (GB). Along Río Valladolid near Valladolid, 2000 m, STEYERMARK 54683 (F). – Lower E slopes of the Andes from S Colombia to S Ecuador.

# HELICONIA

AN IDENTIFICATION GUIDE



Fred Berry and W. John Kress



*Heliconia pastazae* L. Anderss.

BLOOMING. May to  
November

HEIGHT. 12 to 15 feet

HABITAT. Full sun to 30%  
shade

DISTRIBUTION. Ecuador  
[Hawaii]

INFLORESCENCE.

*Bracts.* 19 to 30; red with

narrow yellow lip

*Rachis.* Red or maroon, yellow  
near younger bracts

*Sepals.* Yellow distally to  
white proximally

*Ovary.* White

*Pedice.* White

VEGETATION. Musoid



*Heliconia dielsiana* Loesener

BLOOMING. January to July

HEIGHT. 9 to 13 feet

HABITAT. Full sun to 50% shade

DISTRIBUTION. Colombia and Ecuador [Costa Rica]

INFLORESCENCE.

Bracts. 10 to 25; orange-red

to red, lower bracts very green at tip on some

Rachis. Red

Sepals. Yellow

Ovary. Pale yellow

Pedicel. Pale yellow

VEGETATION. Musoid; some with purplish-tint on lower midrib

