

*DE MACROCARPAEAE GRISEBACH (EX GENTIANACEIS)
SPECIEBUS NOVIS IV: ELEVEN NEW SPECIES OF
MACROCARPAEA (GENTIANACEAE: HELIEAE) FROM
CENTRAL AND SOUTH AMERICA, AND THE FIRST REPORT
OF THE PRESENCE OF STIPULES IN THE FAMILY*

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Abstract. Progress toward a taxonomic revision of *Macrocarpaea* (Gentianaceae: Helieae) has revealed numerous novelties in this morphologically diverse and unexpectedly species-rich genus. Eleven new species are here described and illustrated from Central and South America: Colombia (*M. nicotianifolia* and *M. schultesii*), Costa Rica (*M. auriculata*), Ecuador (*M. subsessilis*), Peru (*M. gracilis*, *M. maguirei*, *M. wurdackii*, and *M. zophoflora*), and Venezuela (*M. ewaniana*, *M. papillosa*, and *M. weaveri*). *Macrocarpaea zophoflora* is notable for being the first species to be described of Gentianaceae that is known, or recognized, to have free deciduous interpetiolar stipules. The family was previously defined as exstipulate without exception.

Keywords: Gentianaceae, Helieae, *Macrocarpaea*, morphology, Neotropics, stipule.

Preliminary work on *Macrocarpaea* by R.E.W. in the early 1980's revealed numerous new species in this morphologically diverse genus. Eleven species identified during those studies are here described for a monograph of the genus being prepared by J.R.G. for *Flora Neotropica*. These species are from Colombia (*M. nicotianifolia*, and *M. schultesii*), Costa Rica (*M. auriculata*), Ecuador (*M. subsessilis*), Peru (*M. gracilis*, *M. maguirei*, *M. wurdackii*, and *M. zophoflora*), and Venezuela (*M. ewaniana*, *M. papillosa*, and *M. weaveri*) (Fig. 1).

The genus has long been underestimated for its species diversity. Hundreds of collections have been made in remote regions of the Neotropics in the past 50 years, yielding over 20 times the number of specimens that were available to Ewan during preparation of the only existing monograph of the genus (Ewan 1948). It is not surprising therefore that by

careful examination of a large number of specimens, that additional and more refined taxonomic groups can be defined.

Colombia

1. *Macrocarpaea nicotianifolia* Weaver & J.R. Grant, *sp. nov.* TYPE: COLOMBIA. Cundinamarca: montes abajo de Salto de Tequendama, cerca a la planada de La Vencedora, 2100 m, planta de 2 m, flores de color amarillo claro, la hoja grande pertenece al nudo de la primera ramificación, March 1966, Uribe Uribe 5577 (Holotype: US). Fig. 2.

Haec species Macrocarpaeae glabra cui similis, sed foliis grandioribus, inflorescentia paniculatum latis, lobis calyce ovatis, ellipticis vel rotundis, apicibus obtusis rotundatis differt.

Unbranched tree, 1–5 m, hispid to spiculate with short simple hairs on stems, petioles,

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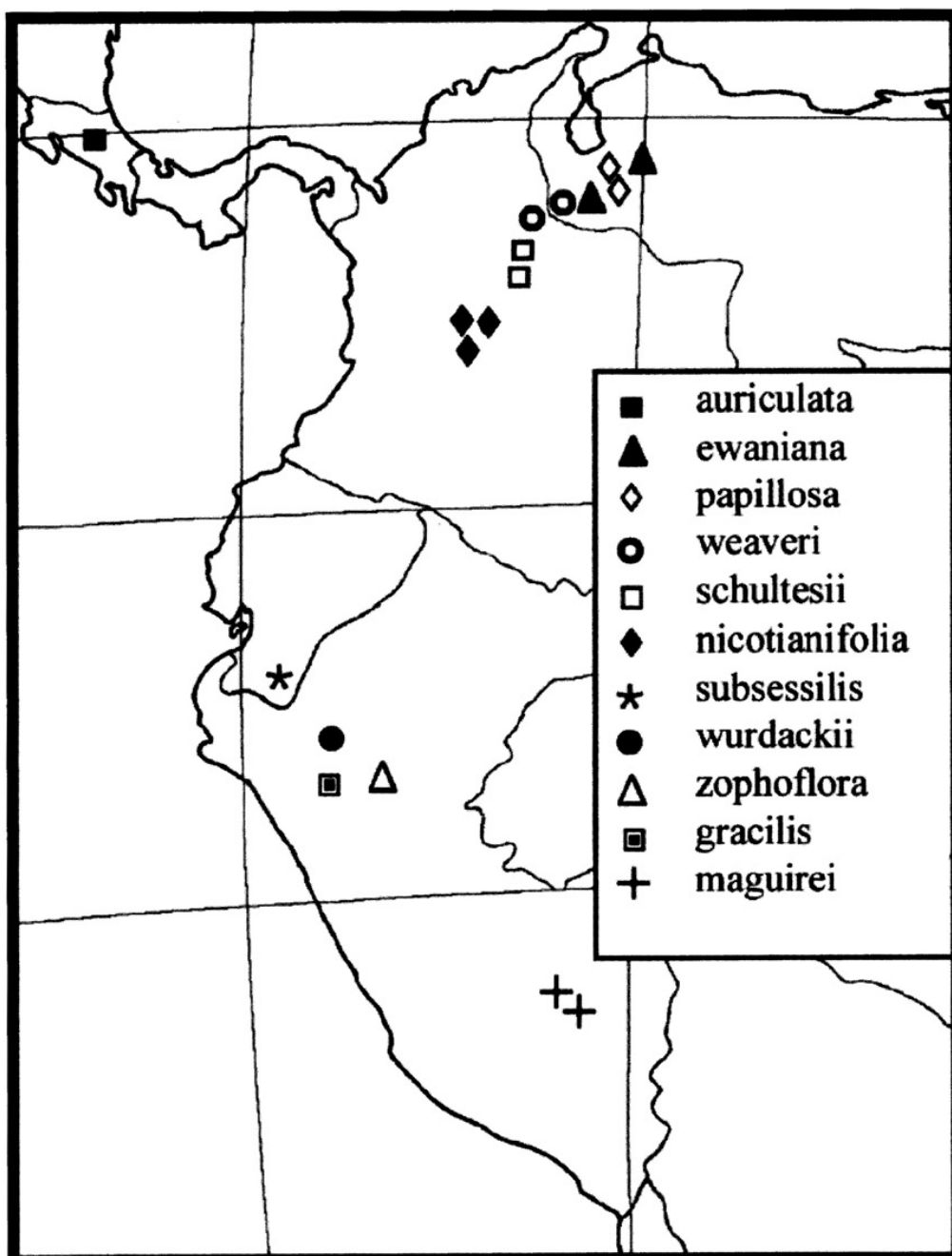


FIGURE 1. Distribution of *Macrocarpaea auriculata*, *M. ewaniana*, *M. gracilis*, *M. maguirei*, *M. nicotianifolia*, *M. papillosa*, *M. schultesii*, *M. subsessilis*, *M. weaveri*, *M. wurdackii*, and *M. zophoflora* in Central America and northwestern South America.

leaves, inflorescences, bracts and calyces. Stems terete to slightly quadrangular above, solid to hollow, 4–15 mm in diameter just below inflorescence. Leaves elliptic to obovate varying to ovate or elliptic, sessile to short-petiolate,

(3.5–)9.0–39.0 cm long; blades (3.5–)9.0–38 × (2–)4.5–16.0 cm, not revolute, papery thin, to thin coriaceous, dark above and conspicuously lighter below, with slightly impressed veins above, and slightly raised veins below, glabrous

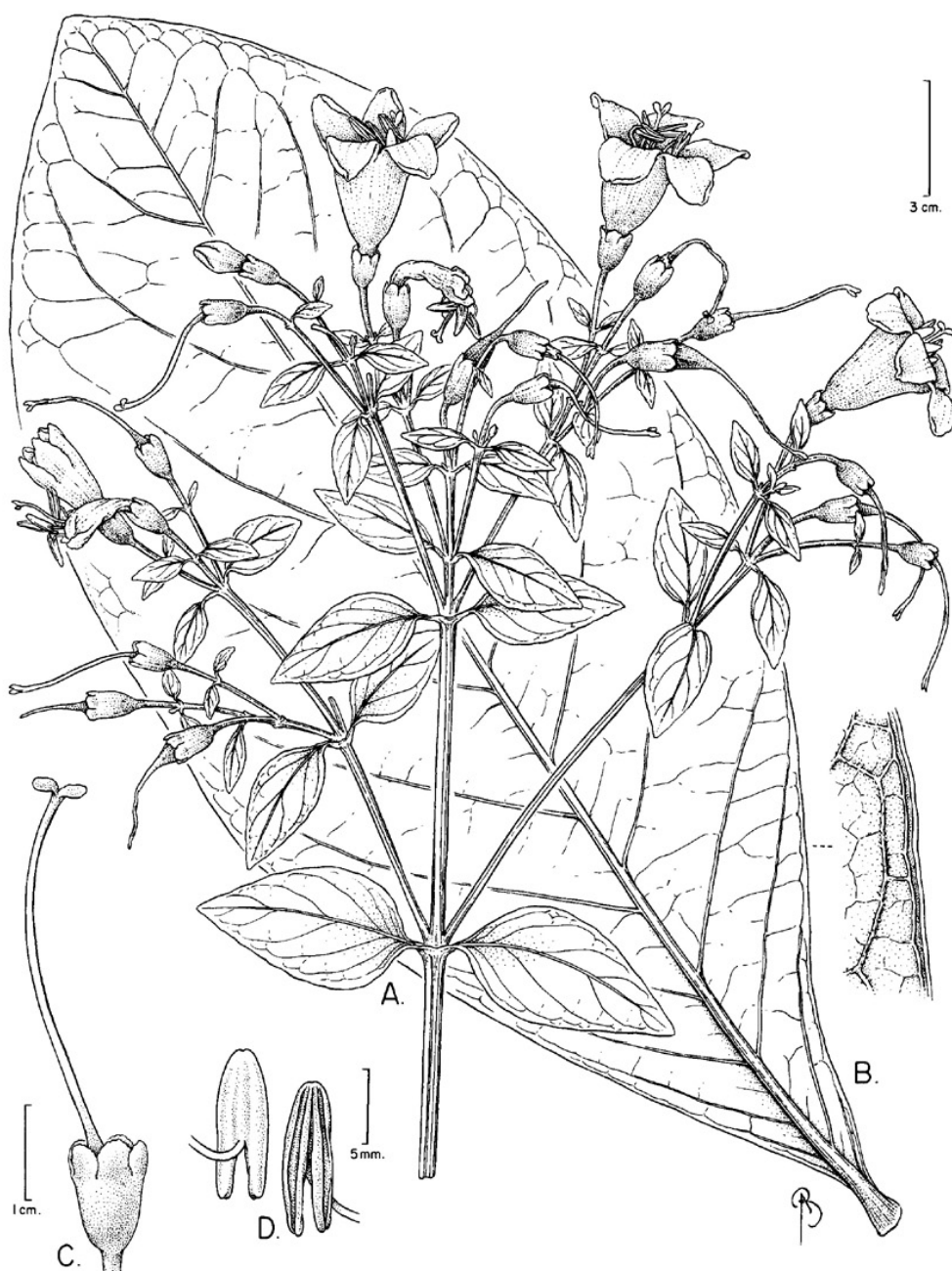


FIGURE 2. *Macrocarpaea nicotianifolia*. A, habit of flowering stem; B, leaf; C, flower post-anthesis; D, anthers. A–E drawn from Uribe Uribe 5577 (US).

above, hispid to spiculate below, especially along veins; base aequilateral to oblique, cuneate, rounded or short-attenuate, apex acute, obtuse to rounded. Petioles 1–10 mm long, robust with short open vagination one quarter to one-third the

length of the petiole; interpetiolar ridge 1–5 mm high. Inflorescence a much-branched open thyrse, 14–55 cm long; branches 7–50 cm long, 3–15 flowered per branch. Bracts ovate, elliptic, to lanceolate, sessile to short-petiolate, 10–135 ×

5–80 mm; base aequilateral to oblique, cuneate, rounded or short-attenuate, apex acute, obtuse to rounded; bract petioles 0–5 mm long. Flowers pedicellate, erect to nodding; pedicels 7–35 mm long; bracteoles lanceolate, linear, to ovate, 1–20 × 1–9 mm. Calyx narrowly campanulate, 10–13 × 6–8 mm, glabrous, spiculate or hispidulous at the base, green, ecarinate; calyx lobes ovate, elliptic to rotund, 4–5 × 3–5 mm, apex obtuse to rounded. Corolla funnel-shaped, 32–60 × 15–35 mm long, pale yellow, yellow, cream-yellow to pale greenish-yellow, smooth; corolla lobes ovate to elliptic, 6–17 × 6–15 mm, apex obtuse to rounded. Stamens 32–52 mm long; filaments 24–40 mm long, filiform, flattened; anthers linear to linear-elliptic, 8–12 × 2.5–3.5 mm. Pistil 45–57 mm long; ovary 7–10 × 3–4 mm; style 37–45 × 1.0–1.5 mm; stigma lobes spatulate to elliptic, 3–4 × 1–2 mm. Capsules long-ellipsoidal to oblong, 21–37 × 8–11 mm, smooth to very faintly ribbed, tan to light brown, erect to nodding; style remnant 3–10 mm long. Seeds angular to polyhedral (pyramids, tetrahedrons, rectangular prisms, to multi-sided prisms), 2–7-sided, not winged, 0.4–1.1 × 0.2–0.5 mm, straw-colored, rugose, boldly ribbed.

Macrocarpaea nicotianifolia is restricted to the Cordillera Oriental in Cundinamarca, just south of Bogotá (Fig. 1). The only other species of the genus known to occur in Cundinamarca is *M. glabra* from which it differs distinctly in its much larger leaves ([3.5–]9.0–39.0 × [2.0–]4.5–16.0 cm vs. 6–10 × 2–6), broad paniculate inflorescence, and calyx lobes that are ovate, elliptic to rotund with an obtuse to rounded apex (vs. triangular-ovate with sharply acute apex). A typewritten annotation label on *García-Barriga 122061* (COL), probably by Ewan, reads “A unique coll., either a local undescribed sp. of Cundinamarca -which is unexpected from the state of bot explor. there or a natural hybrid, the latter unlikely. Ask García to watch for more of this pl.”

Etymology. Named for the resemblance of its leaves to those of the genus *Nicotiana* (Solanaceae).

Paratypes: COLOMBIA. Cundinamarca: San Miguel, S of Sibate on road to Fusagasugá, between kilometer markers 35 and 36, shrub 3 m, flowers pale yellow, on steep shrubby slope of canyon, 2600 m, 10 May 1972, A.S. Barclay et al. 3402 (COL, NA, US); Cordillera Oriental, vertiente occidental, entre San Miguel y Aguadita, 1980–2360 m, arbolito 3.5 m, flores

amarillas, 21 April 1946, *García-Barriga 12061* (COL, US); Carretera a Fusagasugá entre Agua Bonita y la Aguadita, 2300 m, arbolito de 5 m, flores grandes amarillas, 12 January 1968, *García-Barriga & Stout 18875* (COL); Salitre, Taguaté Valley, 6 km west of Gutiérrez, 45 km south of Bogotá, 2625 m, temperate forest, shrub 11 feet, 2 inch DBH, 23 July 1944, *M.L. Grant 9649* (NA, NY, US, WIS); Cordillera Oriental, north side of Quebrada San Roque, Río Blanco Valley, 10 km west of Gutiérrez, 45 km south of Bogotá, 2725 m, temperate forest, tree 12 feet high, corolla pale greenish-yellow, 27 July 1944, *M.L. Grant 9716* (NA); Municipio de Bojacá, veredada de San Antonio, “La Merced”, próximo a la carretera Mosquera-Tena, 2500–2700 m, frútex de 1 m, ramas verde limón, semilustroso, haz verde oscuro brillante, envés verde grisáceo opaco, cáliz verde medio, opaco, bosque nublado con predominio de *Quercus humboldtii*, 16 November 1964, *Lozano-C. & Torres-R. 201* (AAU); Cordillera Oriental, 40 km SW of Bogotá, 2600 m, corolla cream-yellow, 24 January 1949, *Mason 13770* (UC, US); Municipio de Sibate, Vereda de San Fortunato, arbusto de 3 m, corolla amarilla, 8 March 1972, *Romero-Castañeda 11367* (GH, MO); Bojacá, 2800 m, in trockenen Buschwald, höher Strauch, Blüten gelbgrün, Blütenzipfel zurückgeschlagen, 16 March 1949, *Schneider 801* (US); Santandercito, Laguna de Catarnica, 2050 m, 6 September 1958, *Uribe Uribe 3193* (COL, US); abajo del Salto de Tequendama, monte de El Ermitaño, al SE de Santandercito, 2300 m, arbusto muy ramoso, ramas gruesas, flores de color amarillo verdoso, 14 September 1959, *Uribe Uribe 3367* (COL, MO, US); Cordillera Oriental, abajo del Salto de Tequendama, montes detrás del cerro de El Ermitaño, 2400 m, planta de cerca de 2 m, corolla de color Amarillo algo verdoso, 4 October 1964, *Uribe Uribe 4976* (NY); remnants of cloud forest near San Miguel, on road from Bogotá to Girardot, on south side of road, corolla pale cream-yellow, the lobes recurved, spindly, unbranched “shrubs” to 5 m, stem to 5 cm in diameter, leaves glossy, dark green above, falling as the flowers open, 8 October 1972, *Weaver 2634* (GH, MO); remnant forests in vicinity of San Miguel, 3000 m, occasional tall, unbranched woody plants, 5 m, flowers pale yellow, fleshy, 12 September 1968, *Weaver & Kennedy 1548* (CAS, F, MO, NY).

2. *Macrocarpaea schultesii* Weaver & J.R. Grant, *sp. nov.* TYPE: COLOMBIA. Norte de

Santander: Cordillera Oriental, Páramo de Fontibón, 2600–2750 m, small tree, 3 m, corolla green, 15 October 1941, J. Cuatrecasas, R.E. Schultes & E. Smith 12271 (Holotype: GH; isotypes: BM, COL, F, MO, U, US). Fig. 3.

A Macrocarpaeae glabra cui affinis, sed foliis oblongis anguste-ellipticis petiolatis, et lobis calyce ellipticis vel rotundis, apicibus rotundatis differt.

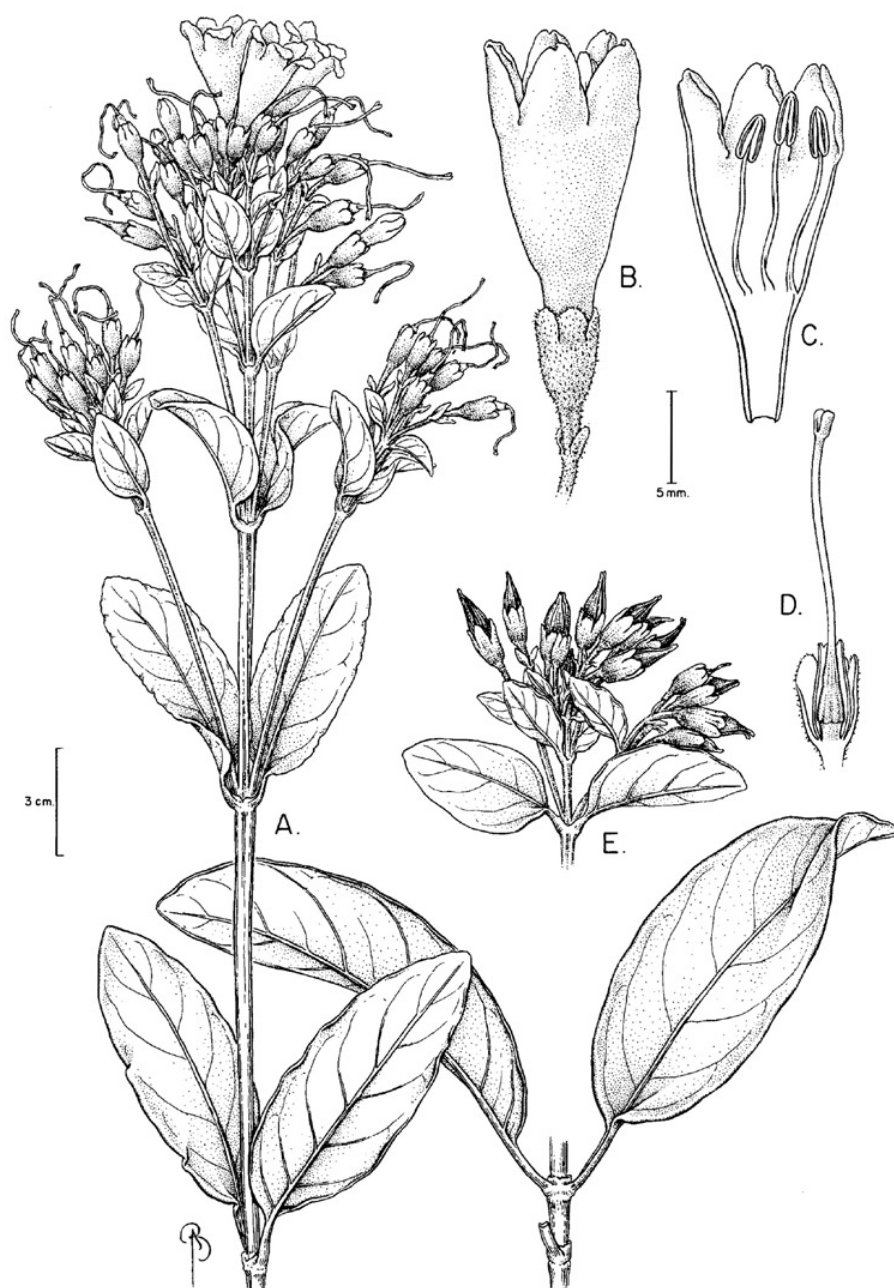


FIGURE 3. *Macrocarpaea schultesii*. A, habit of flowering stem; B, flower; C, internal cross-section of corolla; D, gynoecium; E, habit of fruiting stem. A–D drawn from Cuatrecasas 12271 (US); E drawn from Killip & Smith 20613 (NY).

Branched shrub or small tree, 1.5–3.0 m, hispid to spiculate with short simple hairs on stems, inflorescences, bracts and calyces. Stems terete to slightly quadrangular above, solid to hollow, 3–10 mm in diameter just below inflorescence. Leaves oblong to narrowly elliptic, petiolate, (8.5–)13.0–19.0 cm long; blades 6.0–17.0 × (2.7–)5.0–7.0 cm, not revolute, thick, leathery-coriaceous, dark above and below, with slightly raised veins below, glabrous to rarely spiculate below; base aequilateral to oblique, cuneate or rounded, apex obtuse to acute. Petioles 7–22 mm long, slender with very slight vagination; interpetiolar ridge 2–5 mm high. Inflorescence a much-branched open thyse, 8–31 cm long; branches 4–22 cm long, 6–15 flowered per branch. Bracts oblong, elliptic, ovate to lanceolate, petiolate, 13–92 × 6–40 mm; base aequilateral to oblique, cuneate or rounded, apex obtuse to acute; bract petioles 2–13 mm long. Flowers pedicellate, erect to nodding; pedicels 9–22 mm long; bracteoles linear to lanceolate, 5–8 × 1–5 mm. Calyx narrowly campanulate, 9–14 × 5–7 cm, glabrous, spiculate to hispid, smooth to rugose, ecarinate; calyx lobes ovate, elliptic to rotund, 4–5 × 3–4 mm, apex rounded. Corolla funnel-shaped, 34–40 mm long, 15–25 mm wide at the apex of the tube, green to greenish-yellow, smooth; corolla lobes ovate to elliptic, 7–10 × 5–9 mm, apex obtuse to rounded. Stamens 27–31 mm long; filaments 22–25 mm long, filiform, flattened; anthers elliptic to oblong, 5–6 × 2.0–2.5 mm. Pistil 32–36 mm long; ovary 4–9 × 2–4 mm; style 24–26 × 0.75–1.0 mm; stigma lobes spatulate to elliptic, 2–4 × 1–2 mm. Capsules ovoid to ellipsoidal, 13–20 × 6–10 mm, smooth to faintly rugose, chestnut-tan, nodding; style remnant 4–20 mm long. Seeds angular to polyhedral (pyramids, tetrahedrons, rectangular prisms, to multi-sided prisms), 2–7-sided, not winged, 0.3–0.9 × 0.2–0.6 mm, faint orangish-tan, rugose to colliculate.

Macrocarpaea schultesii is restricted to Santander and Norte de Santander on the Cordillera Oriental in northern Colombia (Fig. 1). It has similarities to *M. glabra*, from further south on the Cordillera Oriental in Cundinamarca, but differs in its oblong to narrowly elliptic leaves with prominent petioles (vs. broadly ovate to elliptic, sessile to short-petiolate), and calyx lobes that are elliptic to rotund with a rounded apex (vs. triangular-ovate with sharply acute apex). Most specimens of *Macrocarpaea schultesii* have been previously referred to or annotated as *M.*

polyantha Gilg [= *M. glabra*] or *M. glabra* (L.f.) Gilg, e.g. in Ewan (1948).

Etymology. Named in honor of Richard Evans Schultes (1915–2001) of Harvard University, eminent Neotropical ethnobotanist and co-collector of the type.

Paratypes: COLOMBIA. Norte de Santander: Pamplona, Chopá, 1400 m, fleurs d'un jaune livide, April 1843, *Linden 1345* (BM, OXF, P, W); Road from Pamplona to Toledo, crossing the divide between Río La Teja (Maracaibo drainage) and Río Mesme (Orinoco drainage), 2500–2800 m, thickets along stream, shrub or small tree, corolla and filaments greenish yellow, anthers white, 28 February 1927, *Killip & Smith 19818* (GH [2 sheets], NY, US); Páramo de Hatico, en route from Toledo to Pamplona, 2900 m, erect shrub, 5–7 ft, branched above, fruit green, corolla wilted, 12 March 1927, *Killip & Smith 20613* (GH [2 sheets], NY, US). Santander: En montaña abierta, con arbustos en suelos arenosos y húmedos al este de Bucaramanga, 2400 m, árbol de 2 m con frutos verdes, 18 December 1948, *Molina & Barkley 18-S361* (NO, US).

Costa Rica

3. *Macrocarpaea auriculata* Weaver & J.R. Grant, *sp. nov.* TYPE: COSTA RICA. Heredia: forests of Rio Vueltas, 2100 m, tree 6–8 m tall, profusely branching, flowers yellow, waxy, 23 May 1969, *L.D. Gomez 2265* (Holotype: GH; isotypes: F [2 sheets], MO, NY). Fig. 4.

Prima facie paula differentia species novae Macrocarpaeae macrophylla vel M. valerii, tamen investigationis singularis indicant species plerumque Monteverdensis est, cum foliis obovatis, basi attenuatis auriculatis, calycibus reniformibus brevioribus, et corollis grandioribus differt.

Branched shrub or tree, 1.7–8.0 m, glabrous to spiculate on stems, petioles, leaves (especially along veins on the lower surface), inflorescences, pedicels, and calyces. Stems terete to quadrangular, solid to hollow, 6–14 mm in diameter just below inflorescence. Leaves obovate varying to elliptic, ovate to oblanceolate, sessile to short-petiolate, (7–)18–34 cm long; blades (7–)18–34 × (3.5–)8.0–14.0 cm, not revolute, papery thin, to thin coriaceous, dark above and conspicuously lighter below, with slightly impressed veins above, and slightly raised veins below; base aequilateral to oblique, broadly attenuate to a slightly auricu-



FIGURE 4. *Macrocarpaea auriculata*. A, habit of flowering stem; B, interpetiolar ridge; C, internal cross-section of corolla; D, flower in bud; E, fruiting stem. A, C–D drawn from Wilbur & Almeda 16828 (DUKE); B drawn from Gómez 2265 (F).

late, apex acuminate. Petioles 0–12 mm long, usually absent, but rarely a short robust petiole with strong open vagination present; interpetiolar ridge 3–5 mm high. Inflorescence a much-branched open thyrses, 24–42 cm long; branches 9–38 cm long, 5–25 flowered per branch. Bracts ovate, elliptic, lanceolate to oblanceolate, sessile to petiolate, 13–180 × 10–65 mm; base oblique or aequilateral, attenuate to a slightly auriculate, apex acuminate; bract petioles 0–3 mm long. Flowers pedicellate, erect to spreading, pedicels 4–22 mm long; bracteoles ovate, elliptic, lanceolate to oblanceolate, 6–19 × 3–10 mm. Calyx campanulate, 7–12 × 5–8 mm, glabrous, spiculate or hispidulous, green, ecarinate; calyx lobes ovate, elliptic to reniform, 3–5 × 3–7 mm, the base slightly auriculate, apex rounded to obtuse. Corolla funnel-shaped, 30–43 mm long, 17–21 mm wide at the apex of the tube, pale yellow, yellow-cream, cream, white, to pale greenish-yellow, smooth; corolla lobes ovate to elliptic, 7–12 × 5–8 mm, apex obtuse to rounded. Stamens 21–27 long; filaments 17–21 mm long, filiform, flattened; anthers linear to linear-elliptic, 4–6 × 1.5–3.0 mm. Pistil 31–36 mm long; ovary 5–7 × 2–4 mm; style 24–26 × 0.75–1.0 mm; stigma lobes spatulate to oblong 2–3 × 1–3 mm. Capsules ellipsoidal

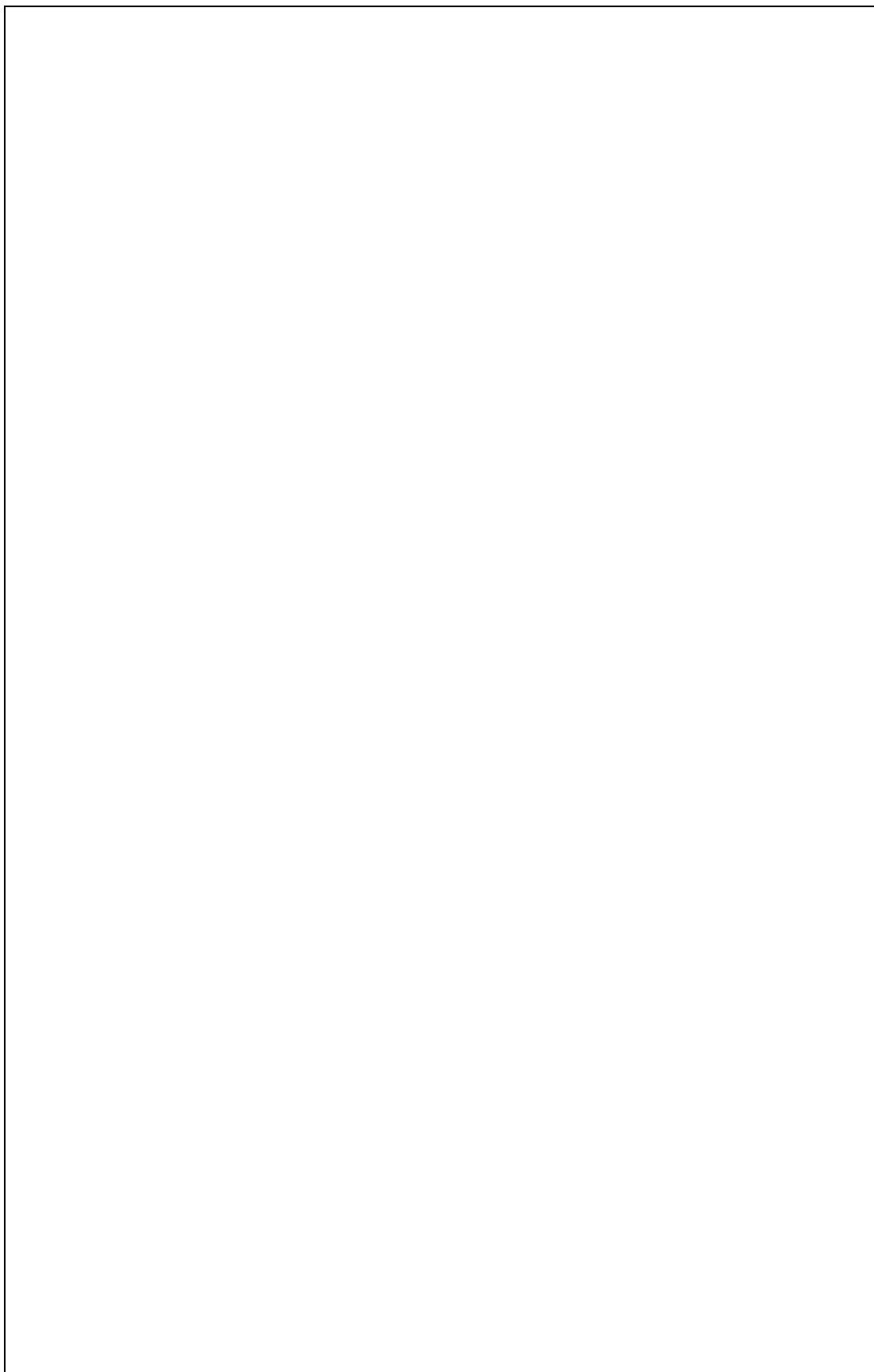
to ovoid, 12–18 × 6–11 mm, smooth to ribbed, straw-colored, erect, not nodding; style remnant 3–9 mm long. Seeds angular to polyhedral (pyramids, tetrahedrons, rectangular prisms, to multi-sided prisms), 2–7-sided, not winged, 0.2–0.6 × 0.2–0.4 mm, dark orangish-tan, reticulate to foveate.

Macrocarpaea auriculata is a local endemic best represented from collections from the Monteverde forest reserve in Costa Rica (Fig. 1). *Macrocarpaea valerii* is a common and frequently collected species also endemic to Costa Rica (Alajuela, Cartago, Heredia, Puntarenas, and San José). *Macrocarpaea macrophylla* is restricted to the Cordillera Occidental of Colombia (Antioquia, Cauca, Chocó, Nariño, Risaralda, Valle), and the Darién of Panama. *Macrocarpaea auriculata*, *M. macrophylla*, and *M. valerii* are sometimes difficult to distinguish from another morphologically. Nevertheless, recent molecular data (Grant & Struwe, unpublished) shows that the three species are not only distinct from another, but not even sister species. Morphological parallelism or convergent evolution may explain how these species developed similar morphological characters. The differences are subtle, but three well-defined species may be characterized and best differentiated in the following key:

- 2a. Leaves obovate varying to elliptic, ovate to lanceolate, blades (7–)18–34 × (3.5–)8.0–14.0 cm, sessile to rarely short-petiolate, leaf bases long-attenuate, often auriculate; calyx short and narrow (7–12 × 5–8 mm), lobes reniform, ovate to elliptic, the base slightly auriculate; corolla long and narrow (30–43 × 17–21 mm). . . . *M. auriculata*
- 2b. Leaves broadly elliptic to broadly obovate, typically long-petiolate, leaf bases oblique to rounded or short-attenuate; calyx long and broad (calyx 9–14 × 7–12 mm), lobes ovate, elliptic to oblong, the base never auriculate; corolla short and broad (25–36 × 18–25 mm). . . . 2
- 2a. Calyx glabrous, tubular-campanulate, the sides typically parallel to another, lobes short, erect, not spreading; pedicels thin and slender; fruits generally smooth. . . . *M. valerii*
- 2b. Calyx spiculate, broadly campanulate, the sides angled, lobes long, spreading; pedicels thick and robust; fruits generally rugose-spiculate *M. macrophylla*

Macrocarpaea macrophylla is based on herbarium material from the Páramo de Almaguer, Cauca, Colombia (Humboldt, Bonpland & Kunth 1819). Since then, it has been variously interpreted, typically as a wide-ranging species (from Colombia and Panama to Costa Rica). Standley (1938) described *M. valerii* from Costa Rica, but did not compare it to any other species in the genus. Weaver (1972) recognized three species to occur in Costa Rica (*M. acuminata*, *M. subcaudata*, and *M. valerii*), and stated that *M. valerii* and *M. macrophylla* “...are virtually identical, except that the calyx of *M. valerii* is glabrous, while that of *M. macrophylla* is spiculate”. Sytsma

(1987) recognized three species to occur in Panama, (*M. browalliioides*, *M. subcaudata*, and *M. macrophylla*), reducing *M. valerii* to synonymy under *M. macrophylla*. Our studies in preparation for the monograph have revealed surprising variability among these species. Not only has the molecular data consistently supported the recognition of both *M. macrophylla* and *M. valerii* as separate and distinct species, but *M. auriculata* is also well-supported. Six taxa of *Macrocarpaea* occur in Central America: *M. acuminata* (CR), *M. auriculata* (CR), *M. browalliioides* (CR, PAN), *M. macrophylla* (PAN), *M. subcaudata* (CR, PAN), and *M. valerii* (CR).



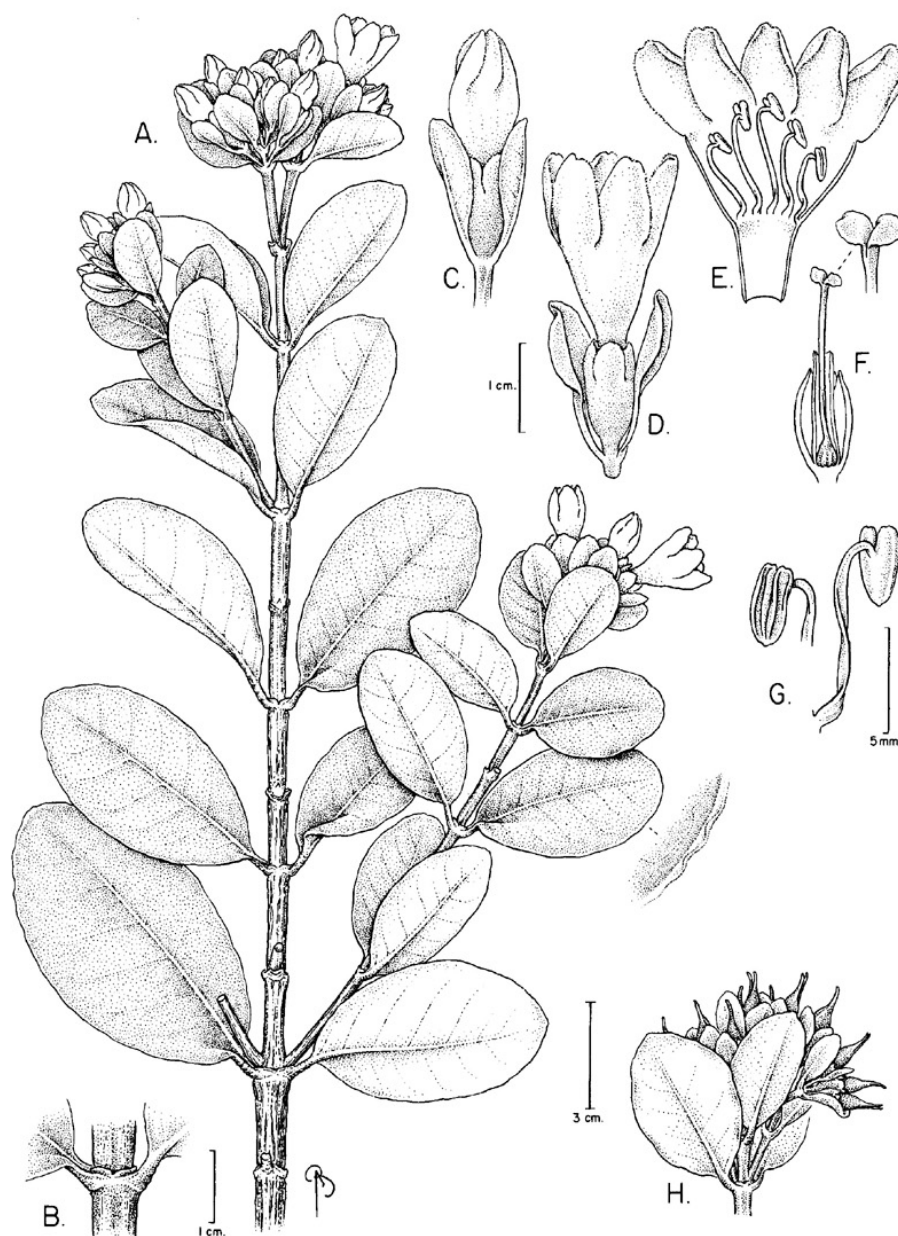


FIGURE 5. *Macrocarpaea subsessilis*. A, habit of flowering stem; B, interpetiolar ridge; C, flower in bud with distinctive bracteoles; D, flower; E, internal cross-section of corolla; F, gynoecium; G, anthers, H, habit of fruiting stem. A-C drawn from *Luteyn & Clements 7978* (NY); D-G drawn from *Balslev 1288* (NY); H drawn from *Steyermark 54436* (NY).

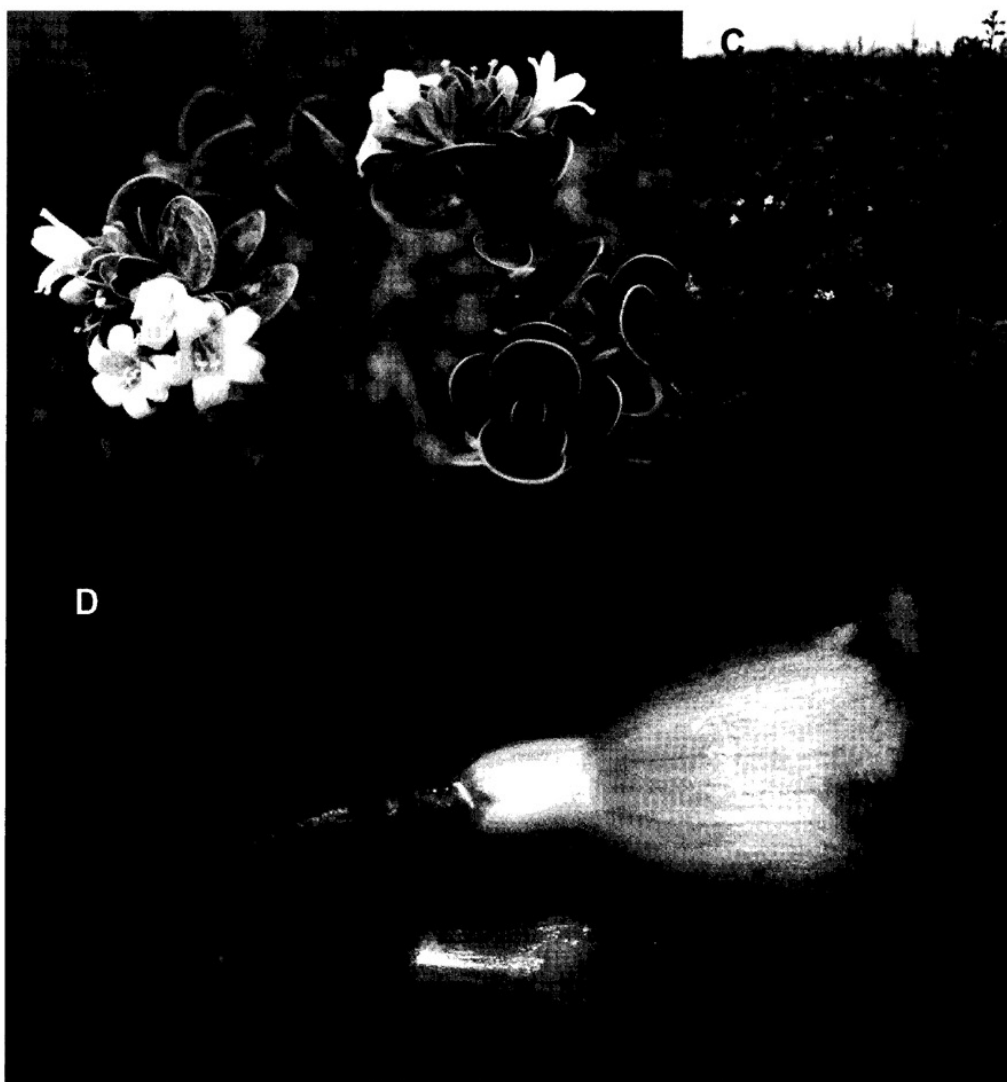


FIGURE 6. *Macrocarpaea* species. A, *Macrocarpaea subsessilis*. Open corollas. Photo by Jason R. Grant, Loja, Ecuador, February 2001, Yangana to Cerro Toledo, 2 November 2002, *J.R. Grant et al.* 02-4267; B, *Macrocarpaea subsessilis*. Short, subsessile inflorescence. Photo by Jason R. Grant, Loja, Ecuador, February 2001, Yangana to Cerro Toledo, 2 November 2002, *J.R. Grant et al.* 02-4267; C, *Macrocarpaea subsessilis*. Habit as a small shrub. Photo by Jason R. Grant, Loja, Ecuador, February 2001, Yangana to Cerro Toledo, 2 November 2002, *J.R. Grant et al.* 02-4267; D, *Macrocarpaea papillosa*. Lateral view of corolla. Photo by Paul Maas, Mérida, Venezuela, 14 November 1980, *Maas & Tillett* 5302.

M. subsessilis to *M. ovalis* Ruiz & Pavon, a name recently excluded from use (Grant 2003).

Macrocarpaea subsessilis can be easily identified by its short, subsessile inflorescence, short-pedicellate flowers, large spatulate bracteoles, and leaves that become light-greenish yellow with yellow to orange midribs when dried as herbarium specimens. It is similar to *M. arborescens*, also restricted to southern

Ecuador, yet differs in its short petiolate leaves, flowers that remain erect to horizontal when flowering (vs. pendent, see photo of *M. arborescens* in Grant 2003: 429), and shorter corollas. It is a small 0.5–1.5(–3.0) m tall shrub that branches from the base, middle or above, while *M. arborescens* is a single-stemmed shrub to tree to 3–5 m tall that profusely branches at or above the middle (photo in Grant 2003: 429).

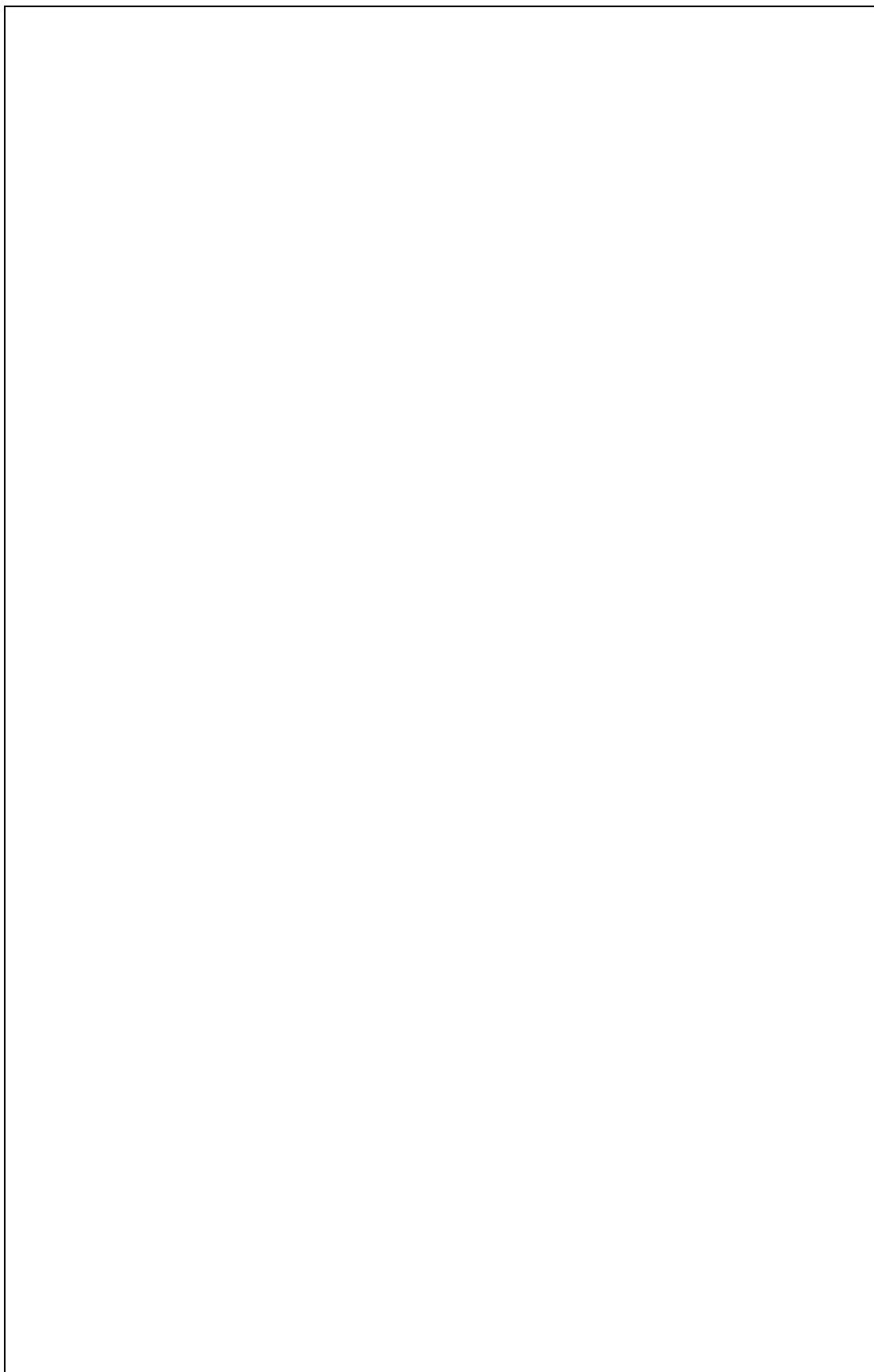
Etymology. This species is named for its nearly sessile inflorescences that often do not extend much further beyond the pair(s) of leaves that subtend them.

Paratypes: ECUADOR. Loja: Yangana-Zumba road, km 15-20, N slopes of Cordillera de Sabanilla, patches of grassland in cloud forest, 2550 m, shrub to 1 m high, loosely branching, 31 December 1980, *Balslev 1288* (AAU, NY); Río Catamayo Drainage, ridge between Quebrada Amarilla and Quebrada Agua Corra, eastern slope of Cordillera de Santa Rosa, Hacienda Guaycopamba, 21 km S of Vilcabamba, open brushy rocky ridge, 04°27'S, 79°13'W, low shrub 0.7 m, leaves stiff, flowers pale yellow-green, 16 February 1945, *Fosberg & Giler 23097* (NO, US); de la carretera Yangana-Valladolid, antes del refugio de Quebrada Honda, 2720 m, 8 October 1995, *Garmendia & Paredes 678* (QCNE); de la carretera Yangana-Valladolid, antes del refugio de Quebrada Honda, 2720 m, 8 October 1995, *Garmendia & Paredes 684* (QCA, QCNE); Nudo de Sabanilla, 21.5 km S of Yangana, 04°25'S, 079°09'W, 10 February 2001, *J.R. Grant & Struwe 3982* (LOJA, NEU, QCNE); Km 8.9 on road from Yangana to Cerro Toledo, 04°23'S, 079°09'W, 14 February 2001, *J.R. Grant & Struwe 4020* (G, LOJA, MO, NEU, NY, QCA, QCNE, S, SBG, US [2 sheets]); Km 9.5 on road from Yangana to Cerro Toledo, 04°22'S, 079°09'W, 14 February 2001, *J.R. Grant & Struwe 4025* (LOJA, NEU, NY QCNE); Km 8.9 on road from Yangana to Cerro Toledo, 04°23'S, 079°09'W, 2 November 2002, *J.R. Grant et al. 02-4267* (MO, NEU, NY, US); Cerro Bangala, ca. 10 km east of Yangana, open slopes and remnants of ceja forest, 2500-2700 m, shrub 1-3 m, corolla pale yellow, 18 October 1988, *Harling 25318* (GB); Nudo de Sabanilla, western slope on road to Yangana, disturbed forest, 2600 m, shrub ca. 0.75 m, perianth greenish-yellow, 6 February 1985, *Harling & Andersson 21731* (GB, QCA); Nudo de Sabanilla, western slope ca. 10 km above Yangana on road to Valladolid, rain forest with open bog-like areas, 2500 m, shrub 0.5-1.0 m tall, corolla pale yellow, 3 April 1985, *Harling & Andersson 23593* (GB, QCA); Cerro Toledo, road to "La Torre", ca. 7 km southeast of Yangana, forest and old clearings, 2500 m, shrub ca. 0.5 m tall, corolla greenish-yellow, 7 April 1985, *Harling & Andersson 23848* (GB, QCA); Yangana-Nudo de Sabanilla, dry and low mountain forest, 2500-2600 m, shrub 1.5 m

tall, corolla pale to yellowish green, 16 October 1988, *Harling & E. Madsen 25261* (AAU, GB); Yangana-Nudo de Sabanilla, dense shrub forest and open scrub, 2200-2400 m, shrub 1.5 m, corolla sulphur yellow, 13 February 1993, *Harling & Ståhl 26373* (GB, QCA, S); Yangana-Cerro Toledo, burned area, pastures and shrubby vegetation, 04°23'S, 79°08'W, 2750-2850 m, shrub 1 m, corolla wax white, 28 December 1988, *Jørgensen & J. Madsen 65728* (AAU, QCA, QCNE); Yangana-Cerro Toledo, burned area with secondary vegetation, 04°21'S, 79°07'W, 2510 m, shrub to 0.8 m, corolla light yellow, 14 November 1990, *Jørgensen et al. 92722* (AAU, QCA, QCNE); Road S out of Loja ca. 14 km S of Yangana, lower slopes of Nudo de Sabanilla, open marshy field along edge of forest, 2460 m, shrub 0.5 m, corolla pale yellowish-green, infrequent, 16 January 1981, *Lutyn & Clements 7978* (NY); Cordillera de Sabanilla, ca. 15 km S of Yangana, wet montane forest, 2480 m, shrub to 1.5 m or more, calyx green, corolla cream, 31 December 1980, *Madison & Besse 7497* (SEL); Beside the road from Yangana to 'Cerro Toledo', 2500 m, January 1998, *Matt 12* (ER); Beside the road from Yangana to 'Cerro Toledo', 2500 m, January 1998, *Matt 13* (ER); Límite del P.N. Podocarpus, carretera Yangana-Cerro Toledo, 2450 m, January 1995, *Palacios 13016* (QCNE); Between Nudo de Sabanilla and Río Cachiyaçu at Tambo Cachiyaçu, in dry soto-bosque, shrub 2-3 feet tall, leaves coriaceous, corolla pale creamy as are the filaments, 3000-3500 m, 17 October 1943, *Steyermark 54758* (F); western slopes of Cordillera de Condor and northwest slopes of Nudo de Sabanilla, around Tambo Cachiyaçu, along Río Cachiyaçu, about 2 leagues southeast of Yangana, 2000-3000 m, shrub 3 feet tall, corolla pale creamy yellow with larger corolla and larger leaves than described species, 19 October 1943, *Steyermark 54805* (F).

Peru

Four new species are described here from Peru, *Macroparpaea gracilis*, *M. maguirei*, *M. wurdackii*, and *M. zophoflora*. Peru is the center of species diversity for several difficult species groups, and has the largest number of species in the genus. Two of the new species described below, both from Amazonas Province represent the currently known floral morphological extremes of the genus.



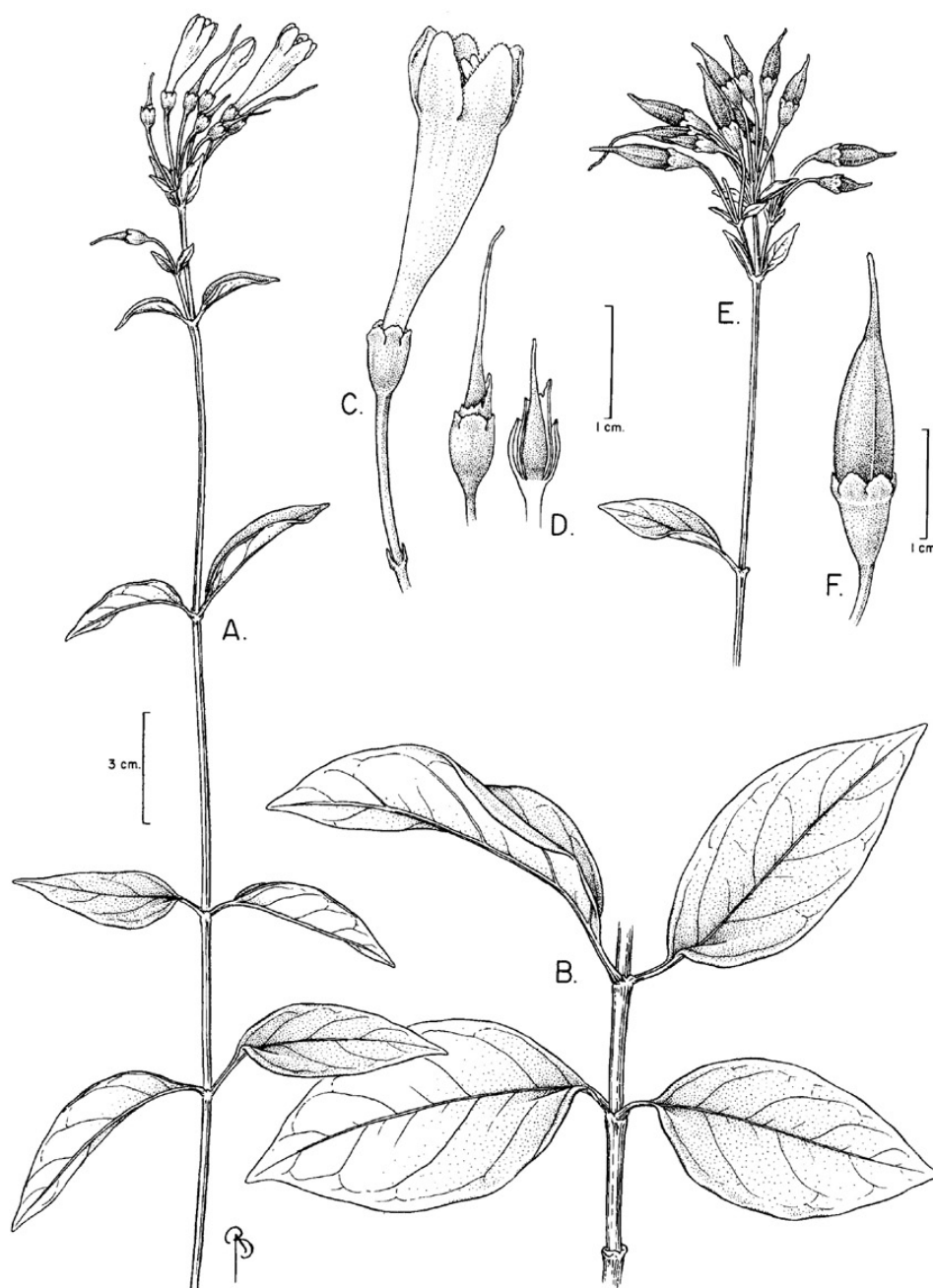


FIGURE 7. *Macroparaea gracilis*. A, habit of flowering stem; B, leaves; C, flower; D, gynoecium; E, habit of fruiting stem; F, fruit. A-F drawn from Weberbauer 6116 (F).



FIGURE 8. *Macrocarpaea maguirei*. A, habit of flowering stem; B, leaf; C, internal cross-section of flower; D, anthers; E, gynoeceum; F, flower post-anthesis. A, C–F drawn from *Maguire 61569* (NY); B drawn from *Weigend 2000/242* (NY).

not revolute, papery thin, to thin coriaceous, dark above and conspicuously lighter below, with slightly impressed veins above, and slightly raised veins below; base aequilateral to oblique, rounded or cuneate to clasping the stem and slightly cordate, apex rounded to obtuse. Petioles 30–55 mm long, robust with strong open vagination nearly equaling the length of the petiole; interpetiolar ridge 4–10 mm high. Inflorescence a much-branched open thyrs, 28–32 cm long; branches 6–28 cm long, 3–15 flowered per branch. Bracts oblong, elliptic, obovate, to oblanceolate, sessile to petiolate, 17–140 × 6–50 mm; base aequilateral to oblique, rounded or cuneate to clasping the stem and slightly cordate, apex rounded to obtuse; bract petioles 0–17 mm long. Flowers pedicellate, erect to slightly spreading, but never nodding; pedicels 4–25 mm long; bracteoles linear, oblong, lanceolate to oblanceolate, 2–14 × 1–4 mm. Calyx campanulate, 9–14 × 7–11 mm, velutinous, green, ecarinate; calyx lobes ovate, elliptic to rotund, 4–6 × 4–7 mm, apex rounded. Corolla funnel-shaped, (40–)55–62 mm long, 20–35 mm wide at the apex of the tube, yellow to yellow-green (*Maguire & Maguire 61569*), smooth; corolla lobes ovate to elliptic, 8–13 × 9–15 mm, apex obtuse to rounded. Stamens 38–45 mm long; filaments 31–38 mm long, filiform, flattened; anthers elliptic to oblong, 7–9 × 2.5–4.0 mm. Pistil 54–57 mm long; ovary 10–12 × 2–3 mm; style 41–43 × 0.75–1.0 mm; stigma lobes spatulate to elliptic 2–3 × 2 mm. Capsules long-ellipsoidal to oblong, 20–32 × 8–12 mm, smooth to faintly rugose, tan to light brown, erect to nodding; style remnant 2–16 mm long. Seeds angular to polyhedral to flattened (typically flattened rectangular prisms), 2–5-sided, winged to unwinged, 0.9–1.6 × 0.2–0.5 mm, faint orangish-tan, reticulate to ribbed.

Macrocarpaea maguirei is a distinct narrow endemic of Cuzco Province in southern Peru (Fig. 1). It can be easily identified by its spiculate, hispid to velutinous condition throughout, broad oblong to elliptic leaves, and inflorescences with minute bracteoles (2–14 × 1–4 mm). There are few species of *Macrocarpaea* in southern Peru and adjacent areas in Bolivia, notably the three Bolivian endemics *M. bangiana* Gilg, *M. cinchonifolia* (Gilg) Weaver, and *M. cochabambensis* Gilg-Benedict. *Macrocarpaea maguirei* may be related to *M. cochabambensis* due to similarities in their pubescence and minute bracteoles, yet differ

distinctly in the shape of the leaves (oblong to elliptic in *M. maguirei* vs. elliptic to obovate in *M. cochabambensis*), and the shape of the calyx lobes (ovate, elliptic to rotund with a rounded apex, vs. reniform, flattened obovate to flattened rotund with a broadly rounded to rounded-truncate apex).

Etymology. Named in honor of Bassett Maguire (1904–1991) of the New York Botanical Garden who collected extensively in South America.

Paratypes: PERU. Cuzco: Paucartambo, Acjanaco, Parque Nacional del Manu, flores verdes, bosque en límite con pajonal, arbusto 3–4 m, abundante, 3000–3100 m, 7 May 1990, *Cano 3562* (MA, USM); Paucartambo, Pillahuata, alrededores, Tres Cruces, +/- 130 km de Cuzco en el camino hacia Pilcopata, 13°05'S, 71°30'W, 2000 m, arbusto 2 m, frutos verdes, 4 April 1987, *Núñez 7790* (USM); Paucartambo, road from Paucartambo to Pilcopata, after turn-off to Tres Cruces, 13°11'S, 071°36'W, 2800–3000 m, cloud forest, only a few sterile plants in one are of undisturbed but semi-open cloud-forest vegetation, 10 February 2000, *Weigend & Weigend 2000/242* (NY); Paucartambo, Pillahuata, habitat bajada de la puna, Akonacu, flores amarillas verdosas, carnosas, partes interiores blancas, 3000 m, 13 December 1952, *Woytkowski s.n.* (NY, USM).

7. *Macrocarpaea wurdackii* Weaver & J.R. Grant, *sp. nov.* TYPE: PERU. Amazonas: Bongará, *jalca* zone along Yambrasbamba-Pomacocha trail between Yanayacu and Pomacocha, 2300–2400 m, 0.3–1.5 m, occasional, corolla dull greenish yellow, 26 June 1962, *J.J. Wurdack 1071* (Holotype: US; isotypes: NY, USM). Fig. 9.

Haec species Macrocarpaeae stenophylla cui similis, sed foliis grandioribus, inflorescentia paniculatum, et calycibus et corollis molto brevioribus differt.

Low slender shrub branching from the base, 0.3–1.5 m, glabrous, spiculate to hispidulous on stems, petioles, leaves (veins on the lower surface), inflorescences, and pedicels. Trunk to 0.5–1.0 cm in diameter, wood always solid. Stems terete to slightly quadrangular above, solid, 1–3 mm in diameter just below inflorescence. Leaves elliptic, obovate, oblanceolate, lanceolate to nearly suborbicular, petiolate, (1.4–) 4–8 cm long; blades (1.2–)3.5–7.0 ×

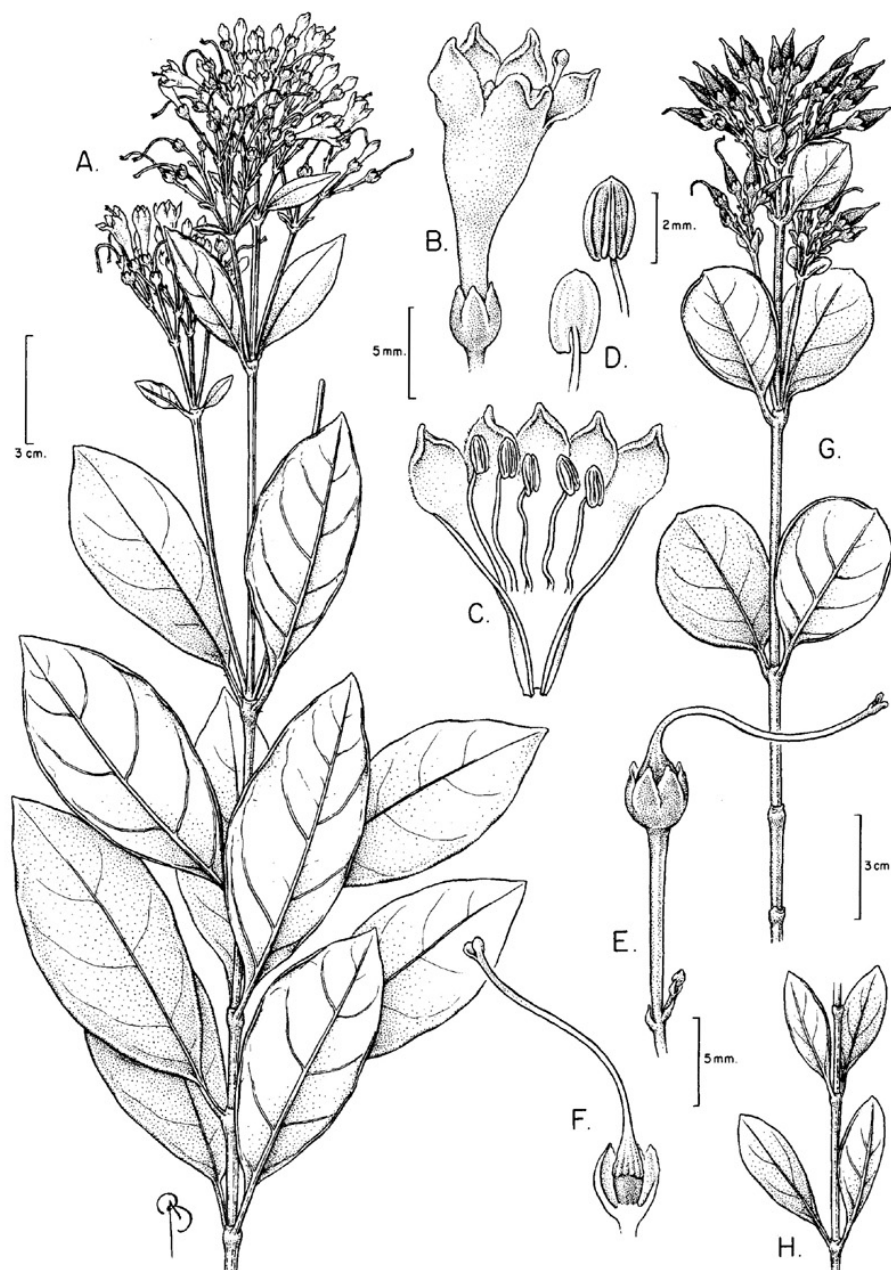


FIGURE 9. *Macrocarpaea wurdackii*. A, habit of flowering stem; B, flower; C, internal cross-section of corolla; D, anthers; E, flower post-anthesis; F, gynoecium; G, habit of fruiting stem; H, additional stem leaves. A–F drawn from *D.N. Smith 4793* (U); G–H drawn from *Wurdack 1071* (US).

(0.6–)1.6–4.0 cm, slightly revolute, leathery-coriaceous, dark above and conspicuously lighter below, with slightly impressed veins above, and slightly raised veins below; base aequilateral, attenuate and decurrent on the petiole, apex acuminate to apiculate. Petioles 2–9 mm long, slender with very slight vagination; interpetiolar ridge 1–3 mm high. Inflorescence a much-branched open thyrse, 3–19 cm long; branches 2–13 cm long, 5–16 flowered per branch. Bracts ovate, elliptic, obovate, oblanceolate to suborbicular, petiolate, 7–22 × 2–19 mm; base aequilateral to oblique, short-attenuate and decurrent on the petiole, apex acuminate to apiculate; bract petioles 1–2 mm long. Flowers pedicellate, erect to slightly spreading, but never nodding; pedicels 7–20 mm long; bracteoles linear to lanceolate, 1–10 × 0.5–3.0 mm. Calyx campanulate to urceolate, 2–5 × 3–4 mm, glabrous, spiculate or hispidulous at the base, green, ecarinate, to faintly carinate on the back of some calyx lobes; calyx lobes ovate to elliptic, 1.5–3.5 × 1.5–2.5 mm, apex acute. Corolla narrowly funnel-shaped, 13–21 mm long, 5–9 mm wide at the apex of the tube, pale yellow, yellow, to dull greenish-yellow, smooth; corolla lobes ovate, elliptic to lanceolate, 3–5 × 2–3 mm, apex acute. Stamens 6.5–9.0 mm long; filaments 5–7 mm long, filiform, flattened; anthers linear to linear-elliptic, 1.5–2.0 × 0.8–1.0 mm. Pistil 14–19 mm long; ovary 3–5 × 1.5–2.0 mm; style 13.0–17.5 × 0.33–0.5 mm; stigma lobes spatulate to suborbicular 1.0–1.5 × 0.5 mm. Capsules ovoid to ellipsoidal, 7–12 × 4–6 mm, smooth, tan, erect to slightly nodding; style remnant 2–6 mm long. Seeds angular to polyhedral to flattened (pyramids, tetrahedrons, rectangular prisms, to multi-sided prisms), 2–5-sided, not winged, 0.3–0.9 × 0.2–0.5 mm, faint orangish-tan, rugose-reticulate.

Macrocarpaea wurdackii occurs in low exposed jalca to pajonal vegetation in Amazonas and adjacent San Martín (Fig. 1). It is a short slender shrub that branches from the base, similar to that of *M. stenophylla* (Peru) and *M. subsessilis* (Ecuador). The flowers are unique in that they are the smallest known to date in the genus. *Macrocarpaea stenophylla* occurs in the same type of habitat, near Molinopampa, Mendoza and Chachapoyas, also in Amazonas, Peru. *Macrocarpaea wurdackii* may be differentiated from *M. stenophylla* in its larger leaves, paniculate (vs. subsessile) inflorescence, and smaller flowers.

Etymology. Named in honor of John Julius

Wurdack (1921–1998) of the Smithsonian Institution, Washington, D.C., pre-eminent specialist of the Melastomataceae.

Paratypes: PERU. San Martín: Rioja Prov., Pedro Ruíz-Moyobamba road, km 368, Campamento García, 77°43'W, 5°45'S, 2200 m, pajonal vegetation, a vegetation type developing due to exposure and poor soil, here found on ridges, exposure more important than substrate, shrub 1.2 m, flower yellow, fruit green, 14 August 1983, *D.N. Smith 4793* (NEU, U, USM); Rioja Prov., km 385 Moyobamba-Bagua road, 77°39'W, 5°41'S, 1850 m, exposed ridge, roadsides, high montane rain forest, shrub 90 cm tall, flowers pale yellow, fruit green, 17 February 1984, *D.N. Smith 5996* (USM).

8. *Macrocarpaea zophoflora* Weaver & J.R. Grant, *sp. nov.* TYPE: PERU. Amazonas: Chachapoyas, moist scrub forest on south side of Molinopampa-Diosan pass, 2700–3100 m, tree 2.5–6.0 m, occasional, shoot leaves to 60 × 45 cm, with stipular flaps at nodes, corolla green, “tabaco caspi”, leaf decoction used topically for backaches, 8 August 1962, *J.J. Wurdack 1618* (Holotype: US; isotypes: F, GH, K [2 sheets], NY [2 sheets], P, S, UC, USM). Fig. 10–11.

Species nova a speciebus aliis foliis stipularia distinguenda.

Tree to 2.5–6.0 m, spiculate, hispid to tomentose with short simple hairs on stems, petioles, leaves, inflorescences, bracts and calyces. Stems terete to quadrangular, hollow, 10–20 mm in diameter just below inflorescence. Leaves broadly ovate to elliptic, petiolate, 19–43(–60) cm long; blades 16–35(–52) × 14–29(–45) cm, not revolute, dark above and conspicuously lighter below, with slightly impressed veins above, and slightly raised veins below, glabrous above, hispid to spiculate below most densely so along the principal veins of mature leaves; base aequilateral to oblique, cordate, apex obtuse to rounded, papery thin to thin coriaceous. Petioles 30–80 mm long, robust with strong open winged vagination nearly equaling the length of the petiole; interpetiolar ridge 5–12 mm high, both sides with a single deciduous interpetiolar “stipule” (Fig. 16), that is, a lunate (half-moon or “Pacman” shaped) 7–10 × 11–12 mm feature with the convex side facing downward in a flap-like manner, attached in a broad “v” shape to the interpetiolar ridge, (about as broad as the stem itself). Inflorescence



FIGURE 10. *Macrocarpaea zophoflora*. A, habit of flowering stem; B, leaf; C, flower post-anthesis; D, internal cross-section of corolla; E, gynoecium. A, C–E drawn from Wurdack 1618 (S); B from Wurdack 1618 (US).

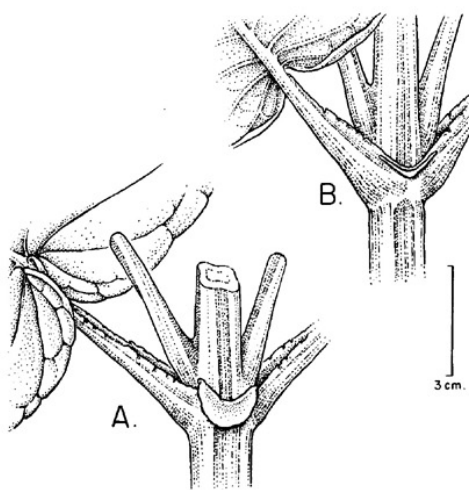


FIGURE 11. *Macrocarpaea zophoflora*. A, free deciduous interpetiolar stipule; B, free deciduous interpetiolar stipule scar. A drawn from Wurdack 1618 (F); B from Wurdack 1618 (US).

a much-branched open thyrses, total length unknown as too long to fit on a single herbarium sheet, yet at least long as the longest branch (47 cm long); branches 8–47 cm long, 5–16 flowered per branch. Bracts ovate, oblong, elliptic to lanceolate, sessile to petiolate, 15–140 × 4–85 mm; base aequilateral to oblique, cordate to cuneate, apex obtuse to acute; bract petioles 0–20 mm long. Flowers pedicellate, erect to slightly spreading, but never nodding; pedicels 8–35 mm long; bracteoles narrowly ovate, lanceolate to linear, 4–10 × 1–4 mm. Calyx broadly campanulate, 15–20 × 12–18 mm, straw-colored to hispid to spiculate, ecarinate; calyx lobes ovate to lunate, 4–7 × 8–11 mm, apex obtuse to rounded. Corolla funnel-shaped, 65–72 mm long, 30–55 mm wide at the apex of the tube, green, smooth; corolla lobes lunate to ovate, 12–17 × 14–29 mm, apex broadly rounded. Stamens 45–52 mm long; filaments 37–40 mm long, filiform, flattened; anthers elliptic to oblong, 8–12 × 4–7 mm. Pistil 52–60 mm long; ovary 11–12 × 7–10 mm; style 35–42 × 2–3 mm; stigma lobes spatulate, 5–8 × 3–4 mm. Capsules and seeds unknown.

Macrocarpaea zophoflora is known only from its type material, collected in the species rich Amazonas province, near Chachapoyas (Fig. 1). It is a highly distinctive species having nearly the largest leaves in the genus, tomentose pubescence, free deciduous interpetiolar

stipules, and thick, fleshy green corollas with lobes that are broader than long. The corolla has similarities to *M. luna-gentiana* J.R. Grant & Struwe of southern Ecuador in the same green color and shape of the corolla lobes. The large pubescent leaves are reminiscent of *M. apparata* J.R. Grant & Struwe also of southern Ecuador. However, no other species in the genus known to date has a stipule.

Vernacular name: tabaco caspi (Wurdack 1618).

Etymology. From the Greek *zophos*, darkness or dusk, and the Latin *flora*, flower, alluding to the presumed night blooming nature of the plant.

Gentianaceous stipule. The interpetiolar ridge of *Macrocarpaea zophoflora* possesses a singular feature thus-so-far unknown to any other species of the Gentianaceae, free deciduous interpetiolar stipules. It is lunate (half-moon or “Pacman” shaped), 7–10 × 11–12 mm, with the convex side facing downward in a flap-like manner, attached in a broad “v” shape to the interpetiolar ridge, about as broad as the stem itself. Even the collector of the material, renowned morphologist John Wurdack, noted on his herbarium labels that the leaves have “stipular flaps at nodes”. As dried on herbarium material, these stipules are clearly visible, and illustrated here as Fig. 13.

Venezuela

The Venezuelan Andes are the north-eastern-most extent of the Andes mountains in South America. From the Cordillera Oriental (or Eastern Cordillera) of Colombia, an eastern spur reaches into Venezuela, the Cordillera de Mérida. Four species of *Macrocarpaea* are present on this range, three of which are newly described here. One is a comparatively wide-ranging species that is notable in the genus for its foliose calyx lobes and bracteoles, *M. bracteata* Ewan (Lara, Mérida, and Trujillo). The three new species appear to be relatively narrow endemics, *M. ewaniana* (disjunct between Táchira and Trujillo), *M. papillosa* (Mérida), and *M. weaveri* (known from the Venezuelan-Colombian border, Táchira and Mérida, Venezuela, and Norte de Santander, Colombia). As is typical in sympatric or nearly sympatric species of *Macrocarpaea*, none of these species appear to be closely related to another. Four other species of *Macrocarpaea* occur in Venezuela, but in the Guayana Highlands: *M. autanae* Weaver, *M. marahuacae* L. Struwe & V.A. Albert, *M. neblinae* Maguire & Steyererm., and *M. rugosa* Steyererm.

KEY TO THE SPECIES OF *MACROCARPAEA* IN THE VENEZUELAN ANDES

- 1a. Bracteoles leafy, broadly spatulate, reniform, fan-shaped, crisped, (4–10 mm long); sepal lobes often becoming leafy as in the bracteoles *M. bracteata*
 1b. Bracteoles typically bract-like, linear, lanceolate, ovate, elliptic, oblanceolate to obovate, (2–21 mm long); sepal lobes never becoming leafy. 2
 2a. Leaves elliptic, lanceolate, ovate to narrowly elliptic, base attenuate, apex acuminate, light green, iridescent *M. papillosa*
 2b. Leaves ovate, elliptic, obovate to oblanceolate, base cuneate or short-attenuate to rounded, dark green, dull 3
 3a. Leaves broadly ovate to elliptic, base cuneate to rounded, apex acute; calyx lobes ovate, obtuse to rounded, 5–8 mm long. *M. ewaniana*
 3c. Leaves elliptic, obovate to oblanceolate, base short-attenuate to rounded, apex rounded, obtuse to acute; calyx lobes oblong, ovate to circular, 3–5 mm long *M. weaveri*

9. *Macrocarpaea ewaniana* Weaver & J.R. Grant, *sp. nov.* TYPE: VENEZUELA. Trujillo: Dto. Urdaneta, Guirigay, hacia Peña Blanca, 3300 m, arbol de unos 5 m alto, n.v. "Totumillo", August 1958, Aristeguieta & Medina 3590 (Holotype: VEN; isotypes: NO, NY, US). Fig. 12.

Species novae Macrocarpaeae duquei cui affinis, sed foliis crassis ovatis vel ellipticis, lobis calyce manifeste longioribus, et pedicellis

cristatis in parte calyces connatis extendens differt.

Tree to 4–5 m, generally glabrous throughout especially when mature, yet sparsely spiculate on stems, peduncles, petioles, pedicels, bracts, calyces and leaf veins, particularly on lower surfaces. Trunk to 10 cm in diameter. Stems terete to slightly quadrangular, solid, 4–10 mm in diameter just below inflorescence. Leaves broadly ovate to elliptic, petiolate, 4–13 mm

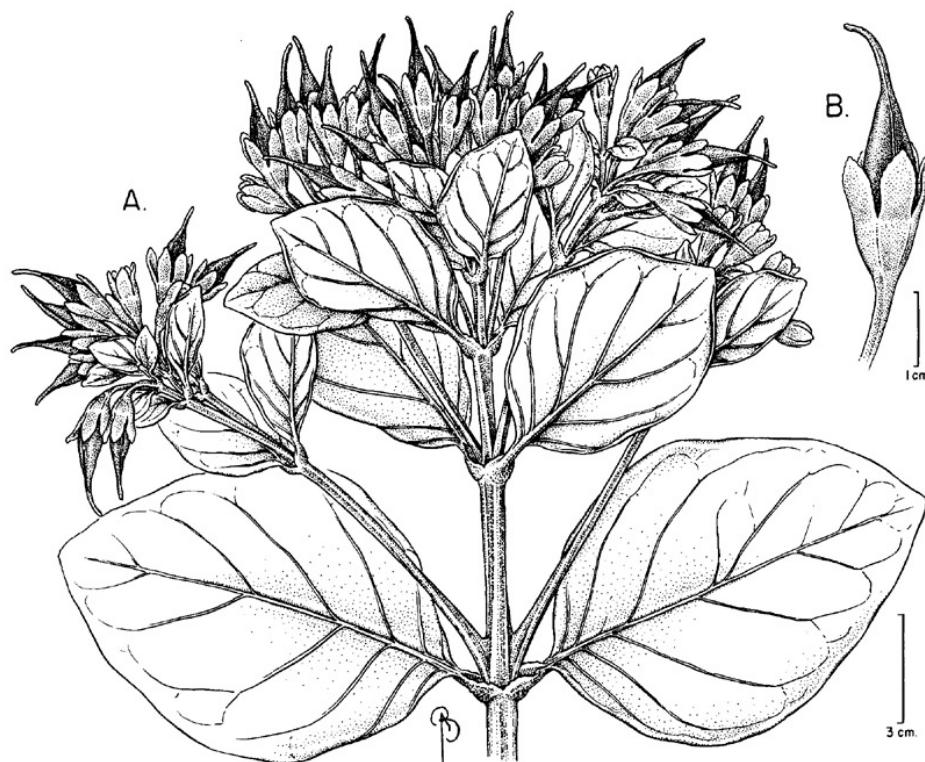


FIGURE 12. *Macrocarpaea ewaniana*. A, habit of fruiting stem; B, fruit showing distinctive ridges on calyx. A–B drawn from Bernardi 10905 (VEN).

long; blades 3.5–12.0 × 3.0–8.5 cm, slightly revolute, thick, leathery-coriaceous, olive-green, with slightly impressed veins above, and strongly raised veins below, sparsely spiculate on the midvein above and below, otherwise glabrous; base aequilateral to oblique, cuneate to rounded, apex acute. Petioles 5–15 mm long, robust with strong open winged vagination nearly equaling the length of the petiole; interpetiolar ridge 2–5 mm high. Inflorescence a much-branched open thyrses, 7–25 cm long; branches 4–17 cm long, 5–18 flowered per branch. Bracts ovate to elliptic, sessile to petiolate, 35–86 × 24–57 mm; base aequilateral to oblique, cuneate to rounded, apex acute, obtuse to rounded; bract petioles 0–11 mm long. Flowers pedicellate, erect to spreading; pedicels 9–20 mm long, spiculate, prominently 5-angled, the ridges extending onto the calyx to the sinuses of the lobes; bracteoles lanceolate to ovate, 6–21 × 3–13 mm. Calyx broadly campanulate, 9–16 × 6–10 mm (in fruit, not at anthesis), rugose, inconsistently spiculate, ecarinate, yet the calyx tube distinctly 5-ridged and extending to pedicel; calyx lobes ovate, 5–8 × 5–7 mm, apex obtuse to rounded. Corolla funnel-shaped, 35–38 mm long, 10–12 mm wide at the apex of the tube, greenish-yellow, smooth; corolla lobes ovate, 7–9 × 6–9 mm, apex obtuse to rounded. Stamens and Pistil unknown. Capsules ellipsoidal, 12–20 × 6–9 mm, wrinkled to rugose, dark brown, erect to nodding; style remnant 10–15 mm long. Seeds unknown.

Macrocarpaea ewaniana is known from two collections, one from Trujillo and the other from Táchira (Fig. 1), though it will probably eventually be found in between in Mérida. It is one of the most distinct species in the genus, readily identifiable by its thick coriaceous ovate leaves and large calyx, the lobes of which are much longer in respect to the calyx tube (in comparison to most species in the genus). It also has a distinctive ridge that extends from the calyx tube onto the pedicel. It has affinities to *Macrocarpaea duquei* Gilg-Benedict of Colombia (Valle), but differs in its thick, broadly ovate to elliptic leaves (vs. thinner, obovate, varying to elliptic to ovate), longer calyx lobes, and unique pedicel characters.

Vernacular name: Totumillo (*Aristeguieta & Medina 3590*).

Etymology. Named in honor of Joseph Andorfer Ewan (1909–1999) of Tulane University, who prepared the only monograph

to date of *Macrocarpaea*: “A revision of *Macrocarpaea*, a neotropical genus of shrubby gentians. Contr. U.S. Natl. Herb. 29(5): 209–250. 1948”. On specimen *Aristeguieta & Medina 3590* (NO) of *M. ewaniana*, Ewan placed an annotation label that reads “3590 *Macrocarpaea* n. sp., need flowering material, Determined by Joseph Ewan 1983”. Named for Ewan as he was first to recognize this as a new species.

Paratype: VENEZUELA. Táchira: La Grita, Páramo del Rosal, 2800–3200 m, arbuscula 4–5 metralis, 10 cm in diameter, floribus luteo-viridellis, cymosis terminalibus, 8 October 1965, *Bernardi 10905* (F, MO, NY, US).

10. *Macrocarpaea papillosa* Weaver & J.R. Grant, *sp. nov.* TYPE: VENEZUELA. Mérida: Road to La Carbonera, 10–19 km from the guard station, rare shrub along road through cloud forest, to 3 m tall and the stem in diameter to 3 cm, corolla greenish-cream, upper surface of the leaves iridescent, 25 September 1972, *Weaver 2611* (Holotype: GH; isotypes: BM, G, MO, WIS). Fig. 13, 6D.

Species novae a Macrocarpaeae affinis similis, sed foliis breve-petiolatis pallide viridis, calycibus brevioribus, et capsulis brevioribus et latioribus.

Unbranched or sparsely branched erect shrub, to viny and rambling, 2–4 m, glabrous, spiculate to hispidulous on stems, petioles, leaves (especially along veins on the lower surface), inflorescences, and pedicels. Stems terete, solid to hollow, 4–10 mm in diameter just below inflorescence. Leaves elliptic, lanceolate, ovate to narrowly elliptic, petiolate, 4–24 cm long; blades 2–22 × 1.5–10.5 cm, not revolute, papery thin to thin coriaceous, dull green above with an iridescent sheen when fresh (surface being covered with numerous reflective papillae), becoming satin-like when dry, below lighter green, sparsely spiculate on the midvein and the primary laterals, otherwise glabrous; base aequilateral, attenuate and decurrent on the petiole, apex acuminate. Petioles 5–20 mm long, slender with very slight vagination; interpetiolar ridge 1–3 mm high. Inflorescence a much-branched open thyrses, 12–30 cm long; branches 3–23 cm long, 5–20 flowered per branch. Bracts ovate, lanceolate to linear, sessile to petiolate, 8–120 × 1–65 mm; base aequilateral, attenuate and decurrent on the petiole, apex acuminate; bract petioles 0–10 mm long. Flowers pedicellate, erect to

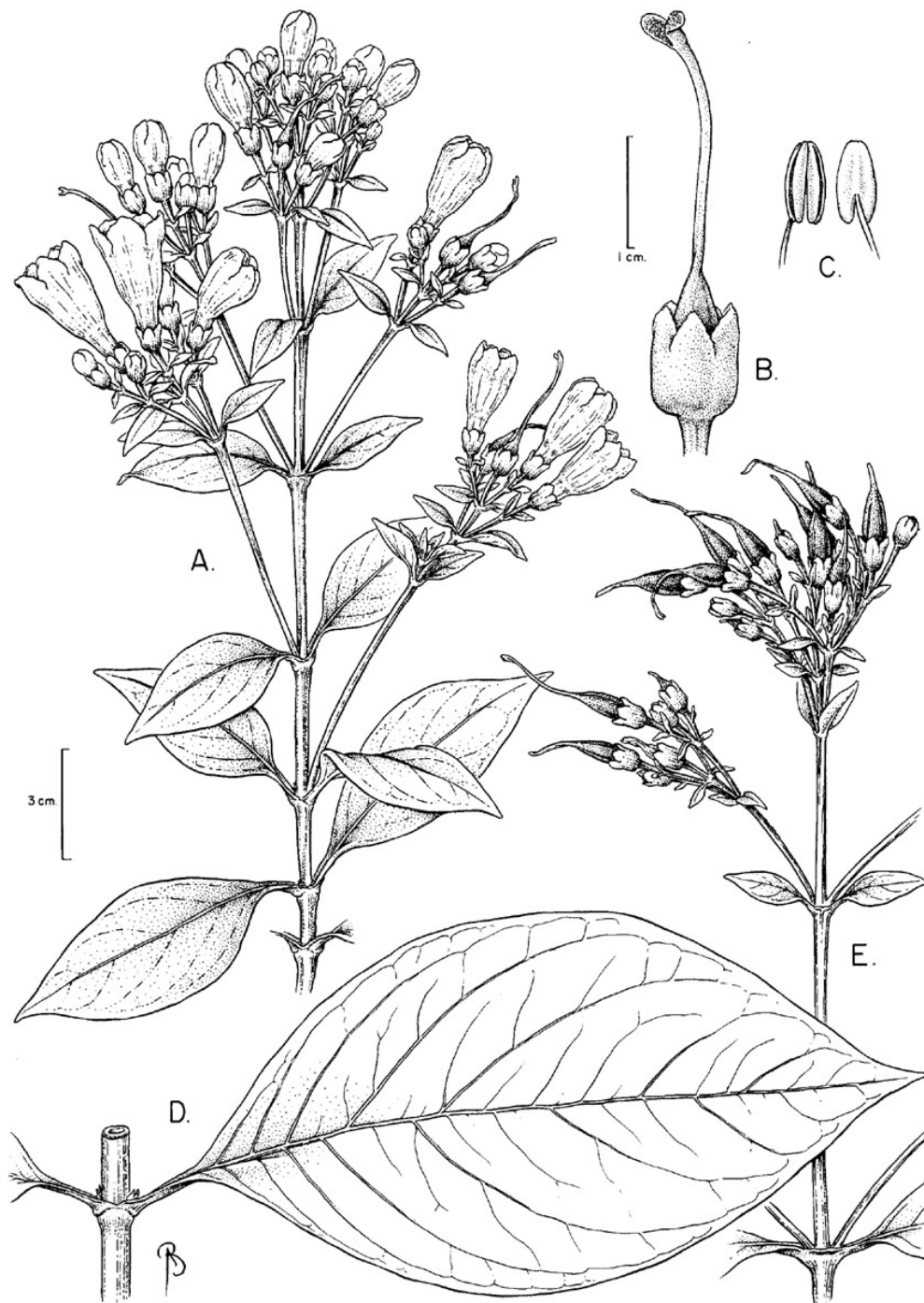


FIGURE 13. *Macrocarpaea papillosa*. A, habit of flowering stem; B, flower post-anthesis; C, anthers; D, leaf and interpetiolar ridge; E, habit of fruiting stem. A Drawn from *Weaver 2611* (WIS); B–C drawn from *Weaver 2611* (MO); D drawn from *Maas & Tillett 5302* (K); E drawn from *Maas & Tillett 5302* (NY).

spreading; pedicels 7–23 mm long; bracteoles linear to lanceolate to ovate, 2–14 × 1–4 mm. Calyx campanulate, abruptly constricted to the pedicel, the base appearing bulbous when dry, 6–10 × 5–7 mm, glabrous, viscid, green, ecarinate; calyx lobes unequal, the inner ones oblong, the outer ones suborbicular, transverse-elliptic, 3–5 × 4–6 mm, apex obtuse. Corolla funnel-shaped, 30–44 mm long, 22–27 mm wide at the apex of the tube, yellow-cream, yellowish green, greenish-white, greenish-cream, pale green to green, smooth; corolla lobes ovate, oblong-ovate to broadly ovate, 7–12 × 9–11 mm, apex obtuse to rounded. Stamens 25–33 mm long; filaments 21–26 mm long, filiform, linear to linear-elliptic; anthers 4–7 × 2.0–3.5 mm. Pistil 34–38 mm long; ovary 7–9 × 3–5; style 23–25 × 1.0–1.5; stigma lobes spatulate 2.5–3.5 × 1.5–2.0. Capsules ovoid to ellipsoidal, 15–23 × 7–9 mm, smooth to rugose, orangish-tan, erect to nodding; style remnant 5–17 mm long. Seeds angular to polyhedral (pyramids, tetrahedrons, rectangular prisms, to multi-sided prisms), 2–7-sided, winged to unwinged, 0.3–0.8 × 0.2–0.6 mm, faint orangish-tan, rugose-reticulate.

Macrocarpaea papillosa is a common species of Mérida (Fig. 1). It is readily identifiable by the iridescent sheen of its leaves. It appears similar to *Macrocarpaea affinis* Ewan (Santander, Colombia), and *M. nicotianifolia* Weaver & J.R. Grant (Cundinamarca, Colombia). It shares the same general leaf shape (elliptic, lanceolate, ovate to narrowly elliptic) and inflorescence architecture with *M. affinis*, yet differs in its shorter-petiolate iridescent light green leaves (vs. opaque dark green), shorter calyces (6–10 × 5–7 vs. 8–11 × 7–10 mm), and shorter and broader capsules (15–23 × 7–9 vs. 32–35 × 4–8 mm).

Etymology. This species is named for the reflective papillae covering the upper surface of the leaf blades, imparting to them an iridescent sheen unique in the genus.

Paratypes: VENEZUELA. Mérida: Dto. Campo Elias, entre Las Cruces e inmediaciones de la Carbonera, 1000 m, trepadora, flores amarillo-crema, 5 estambres, estigma bifido, 17 August 1972, *Benítez de Rojas 1505* (F, MY); Faldas inferiores del Toro, 2300 m, 22 November 1952, *Bernardi 14* (NY); Selva nublada del Cerro El Toro, de frente a Mérida, 2100 m, arbusto sarmentoso, 30 January 1955, *Bernardi 1878* (NY); Páramo de Las Coloradas, entre La Capilla y El Aserrucho

(Santa Cruz de Mora-El Molino), 2700–2750 m, hierba erguida, hojas verde claras, corollas verdoso-pálidas, 27 May 1980, *Cuatrecasas et al. 28997* (NY, US 2 sheets); Sierra del Norte, 2400 m, lisière de forêt (selva nublada), liane, fl. vert-jaunâtre, corolle vineuse extérieurement, 6–8 October 1952, *Humbert 26685* (P, VEN); 18 km above La Azulita, montane forest, forest margin, 2200 m, branched shrub, 4 m high, calyx sticky, green, corolla green, ovary dark green, style pale green, 14 November 1980, *Maas & Tillett 5300* (COL, GH, K, MO, NY, S, U, VEN); 24 km above La Azulita, montane forest, 2300 m, unbranched or branched shrub, calyx and corolla green, 14 November 1980, *Maas & Tillett 5302* (GH, K, MO, NY, U, VEN); Between La Cumbre, San José, and Mucutuy, 1820–2590 m, shrub 4 feet tall, leaves dull green above, paler dull green below, firmly subcoriaceous, 3 May 1944, *Steyermark 56239* (F); Bosque de la Mucuy, Zabay, 2200–2500 m, hierba de tallos fistulosos, 14 November 1958, *Trujillo 4020* (MY); Forests along the Teleferico de Mérida, near the station La Montaña, 2400 m, rare shrub along trail, to 2 m tall, mature flowers not seen, but buds yellow-green, leaves iridescent above, 4 October 1972, *Weaver 2629* (GH 2 sheets, MO).

11. *Macrocarpaea weaveri* J.R. Grant, sp. nov.
TYPE: VENEZUELA. Táchira: Base of Páramo de Tamá, above the settlement of Betania, 2800–3100 m, common in a narrow zone just below the páramo, trees to 6 m tall, with a trunk in diameter to 7 cm, corolla cream-colored, 27 September 1972, *Weaver 2613* (Holotype: GH; isotypes: BM, G, MO, WIS). Fig. 14.

Species novae a Macrocarpaeae wurdackii cui affinis pro indicii molecularibus, sed foliis latis, et floribus molto grandibus, et a alius species novae tamen inedita Boyacá et Santander Colombiense (typus Orozco 1060) foliis ellipticis obellipticis obovatis vel oblanceolatis, calycibus angustis, et inflorescentia multifloribus differt.

Branched shrub to tree, 3–7 m, glabrous, spiculate to hispidulous on stems, petioles, leaves (especially along veins on the lower surface), inflorescences, and pedicels. Trunk to 7 cm in diameter. Stems terete, solid, 3–12 mm in diameter just below inflorescence. Leaves elliptic, obovate to oblanceolate, petiolate, 6–27 cm long; blades 5.5–24.0 × 2.5–12.0 mm,



FIGURE 14. *Macrocarpaea weaveri*. A, habit of flowering stem; B, flower; C, gynoecium; D, internal cross-section of corolla; E, habit of fruiting stem. A–D drawn from *Luteyn* 5349 (NY); E drawn from *Weaver* 2613 (NY).

slightly revolute, coriaceous, deep green, shiny to dull, and glabrous above, paler green, dull, and hispidulous on the midvein and the primary laterals below, otherwise glabrous; base aequilateral to oblique, short-attenuate to rounded, apex rounded, obtuse to acute. Petioles 5–35 mm long, robust with strong open vagination one quarter to one-third the length of the petiole; interpetiolar ridge 2–7 mm high. Inflorescence a much-branched open thyrs, 11–30 cm long; branches 9–28 cm long, 8–20 flowered per branch. Bracts rotund, elliptic, ovate, obovate, lanceolate to oblanceolate, petiolate, 12–110 × 7–55 mm; base aequilateral to oblique, short-attenuate to rounded, apex rounded, obtuse to acute; bract petioles 2–13 mm long. Flowers pedicellate, erect to spreading; pedicels 7–21 mm long; bracteoles obovate, elliptic, oblanceolate to lanceolate, 3–17 × 1–5 mm. Calyx narrowly campanulate, 8–13 × 4–8 mm, glabrous, spiculate to hispidulous, smooth to papillate, green, olive green, ecarinate; calyx lobes oblong, ovate to circular, 3–5 × 3–4 mm, apex obtuse to rounded. Corolla funnel-shaped, 18–30 mm long, 10–12 mm wide at the apex of the tube; pale green with pale yellow lobes, olive-green with dull yellow corolla lobes, intense yellow, yellow-cream, to cream-colored, smooth; corolla lobes narrowly ovate to elliptic, 5–8 × 3–8 mm, apex obtuse to rounded. Stamens 11–17 mm long; filaments 8–13 mm long, filiform, flattened; anthers ovate to oblong, 3.5–5.0 × 1.5–2.0 mm. Pistil 21–24 mm long; ovary 5–9 × 2–4 mm; style 13–14 × 0.5–1.0 mm; stigma lobes spatulate 1.5–2.0 × 0.5–1.0 mm. Capsules ovoid to ellipsoidal, 12–20 × 4–6 mm, smooth, pusticulate to rugose, faint-orangish tan, erect to nodding; style remnant 6–11 mm long. Seeds angular to polyhedral, (3–)5–8-sided, not winged, 0.4–1.0 × 0.2–0.6 mm, light orange to translucent amber-colored, slightly rugose.

Macrocarpaea weaveri occupies a narrow range on both sides of the Venezuelan-Colombian border (Fig. 1). It is known best from the Páramo de Tamá, an area rich in endemics including the spectacularly flowered *Lagenanthus princeps* (Lindl.) Gilg (Gentianaceae).

From the molecular work undertaken, *Macrocarpaea weaveri* is sister to *M. wurdackii* of Peru (Amazonas, San Martín) (Grant & Struwe, unpublished). It differs distinctly, however, in its broader leaves, and slightly larger flowers (18–30 vs. 13–21 mm). Based on morphological similarities, *Macrocarpaea*

weaveri is most closely related to an undescribed species from Colombia (Boyacá, Santander), for which the type will be *Orozco 1060* (COL). The undescribed species occurs further southwest on the Andean Cordillera in Colombia (Santander and Boyacá), and we have not been able to sequence it. *Macrocarpaea weaveri* has elliptic, obovate to oblanceolate leaves with aequilateral, oblique, short-attenuate to rounded bases, that are typically shiny on the upper surface vs. broadly obovate leaves with rounded apices, long-cuneate to attenuate bases that are dull on the upper surface in the undescribed species.

Etymology. Named in honor of Richard E. Weaver (1943–), student of the Gentianaceae who prepared a treatment of the genus *Macrocarpaea* in Costa Rica (Weaver 1972), and is a co-author of this paper. Some herbarium material has been annotated by Weaver as “*Macrocarpaea parviflora* Weaver, ined”.

Paratypes: COLOMBIA. Norte de Santander: Municipio de Herrán, Parque Natural Nacional Tamá, Sector Orocué, hacia al Alto del Pesehre, 2650–3020 m, arbusto hasta 3.50 m, flores crema, 2 April 1987, *Lozano C. et al.* 5559 (MA); Municipio de Toledo, Páramo de Santa Isabel hacia la finca de Palo Colorado, Finca de Don David Fernández, 2300 m, arbolito de 4 m, flores amarillas, frutos verdes, en bosque, 4 November 1994, *Orozco et al.* 3000 (COL 2 sheets). VENEZUELA. Mérida: Municipio San José y Mucutuy, Distrito Campo Elías, Páramo del Cupis, Zona de Pozo Negro, 3000 m, arbusto inerme, 4–5 m, 23 March 1967, *Ruíz et al.* 3892 (VEN) [this specimen is sterile, and while tentatively placed here, the only other species it could be (as the genus is presently understood) might be *M. ewaniana* as it is certainly not *M. papillosa*]. Táchira: Páramo de Taimá, 3000–3250 m, in silva montana uda, 2500–3000 m, arbol 4–5 m alt, flores verdes-amarillos, 12 November 1976, *Charpin & Jacquemoud* 13226 (U); Hoya del Río Táchira, Cabeceras de la Quebrada de El Reposo, 2800–3000 m, [planta] 6–7 m alta, hojas crasas, subcoriáceas, verde amarillentas semioscuras, algo brillantes haz verde claros envés, ramas verde amarillento pálidas, cálices verde claros, corollas amarillos-cremas con un punto de verde, 16 January 1973, *Cuatrecasas et al.* 28346 (US 2 sheets); Dto. Junín, entre el Páramo de Tamá y Betania, 2800–3000 m, arbusto de flores amarillas, 18 March 1973, *Fernández* 2103 (MY); En el camino entre

Betania (Valle del Tamá) hacia San Vicente de la Revancha, zona paramera, un sector del Páramo de Tamá, 2750 m, arbolito de 3.3 m de alto, inflorescencias cimosas, flores con corollas de color amarillo intenso, 5 January 1983, *López-Figueiras* 29854 (US); Trail leading to summit of Páramo de Tamá, virgin cloud forest to páramo, 2500–3200 m, small tree 5 m, corolla pale green, lobes pale yellow, 29 January 1978, *Luteyn et al.* 5349 (GH, NY, VEN); rich moist woods at base of Páramo de Tamá, 4–10 km above Betania, 2500–2895, shrub 8 feet tall, leaves coriaceous, deep green

above, paler green below, 15 July 1944, *Steyermark* 57317 (F); subpáramo y bosque enano, faldas inmediatamente debajo del Páramo de Tamá, cerca de la frontera Colombo-Venezolana, 2750–2950 m, shrub 3 m, leaves coriaceous, subrevolute, dark green above, pale green below, calyx olive green with yellow-olive green lobes, corolla lobes dull yellow, the tube olive green, peduncles olive yellow green, beginning of ericaceous subpáramo and dwarf shrubs and openings, 20 May 1967, *Steyermark & Dunsterville* 98555 (NY, US); *Steyermark & Dunsterville* 80684 (VEN).

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***Macrocarpaea* in Bolivia**

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ch. de Chantemerle 18, 2007 Neuchâtel, Switzerland

Catálogo de las Plantas Vasculares de Bolivia

Macrocarpaea (Grisebach) Gilg

Compiled by J.R. Grant (NEU)

3 endemic species

Macrocarpaea bangiana Gilg

Ref. Gilg, 1896; Ewan 1948

Shrub to treelet. Endemic, Andes, Yungas, 1500-2500 m.

Dept.: LP

Voucher: Bang 520 (BM, E, G, GH, K, M, MANCH, MICH, MO, NY, PH, US, W)

Nom. Vern.: None

Macrocarpaea cinchonifolia (Gilg) Weaver

Ref. Gilg, 1895; Ewan 1948; Weaver 1974

Shrub to treelet. Endemic, Andes, Yungas, 1500-3000 m.

Dept.: LP

Voucher: Rusby 1173 (BM, E, G, NY, P, PH, S, US, WIS)

Nom. Vern.: None

Macrocarpaea cochabambensis Gilg-Ben

Ref. Gilg-Ben 1936; Ewan 1948

Treelet to tree. Endemic, Andes, Yungas, 1500-3000 m.

Dept.: CO, LP

Voucher: Steinbach 8992 (BM, E, G, K, MO, NY, S, U, Z)

Nom. Vern.: None

DE MACROCARPAEAE GRISEBACH (EX GENTIANACEIS) SPECIEBUS NOVIS
V: THIRTY-FOUR NEW SPECIES OF *MACROCARPAEA* (GENTIANACEAE:
HELIEAE) FROM COLOMBIA, ECUADOR, AND PERU, AND TYPIIFICATION
OF ALL SPECIES IN THE GENUS

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Abstract: In preparation for the *Flora Neotropica* monograph of *Macrocarpaea* (Gentianaceae: Helieae), thirty-four new species are here described and illustrated: Colombia (12 sp.) (*M. biremis*, *M. gaudialis*, *M. gondoloides*, *M. gravabilis*, *M. gulosa*, *M. hilarula*, *M. illecebrosa*, *M. jocularis*, *M. lacrossiformis*, *M. maryae*, *M. umerulus*, and *M. ypsilocaule*), Ecuador (3 sp.) (*M. elix*, *M. gattaca*, and *M. pringleana*), Peru (19 sp.) (*M. canoëifolia*, *M. dillonii*, *M. ericii*, *M. fortisiana*, *M. fosteri*, *M. innarrabilis*, *M. jalca*, *M. kayakifolia*, *M. kuelap*, *M. kuepferiana*, *M. luya*, *M. normae*, *M. obnubilata*, *M. ostentans*, *M. pajonalis*, *M. tabula-fluctivagifolia*, *M. tahuantinsuyuana*, *M. wallnoeferi*, and *M. weigendiorum*). A list of all names originally described in (or transferred to) *Macrocarpaea* as of year 2001 is presented. Twelve lectotypes are selected, those being *Lisianthus obtusifolius* var. *constrictus*, *Macrocarpaea bangiana* Gilg, *M. bogotana* Gilg, *M. calophylla* Gilg, *M. chlorantha* Gilg, *M. cochabambensis* Gilg-Ben., *M. glaziovii* Gilg, *M. hartii* Krug & Urb., *M. micrantha* Gilg, *M. pachyphylla* Gilg, *M. polyantha* Gilg, and *M. rubra* Malme. A neotype is selected for *M. duquei* Gilg-Ben., and *M. weberbaueri* Gilg is excluded from use.

THIS IS A WORKING MANUSCRIPT, AND THEREFORE NAMES INDICATED AS “SP. NOV.” ARE NOT INTENDED OR RECOGNIZED BY THE AUTHOR TO BE PUBLISHED IN THIS THESIS.

Keywords: Gentianaceae, Helieae, *Macrocarpaea*, morphology, Neotropics

Continued study of herbarium material in preparation of a full taxonomic monograph of *Macrocarpaea* for Flora Neotropica (Grant, in prep), has revealed numerous new species. These are from Colombia (*M. biremis*, *M. gaudialis*, *M. gondoloides*, *M. gravabilis*, *M. gulosa*, *M. hilarula*, *M. illecebrosa*, *M. jocularis*, *M. lacrossiformis*, *M. maryae*, *M. umerulus*, and *M. ypsilocaule*), Ecuador (*M. elix*, *M. gattaca*, and *M. pringleana*), Peru (*M. canoëifolia*, *M. dillonii*, *M. ericii*, *M. fortisiana*, *M. fosteri*, *M. innarrabilis*, *M. jalca*, *M. kayakifolia*, *M. kuelap*, *M. kuepferiana*, *M. luya*, *M. normae*, *M. obnubilata*, *M. ostentans*, *M. pajonalis*, *M. tabula-fluctivagifolia*, *M. tahuantinsuyuana*, *M. wallnoeferi*, and *M. weigendiorum*).

A number of the new species described in the paper are only known from a few collections. X of X species are known from only their type (11, *M. beltranii*, *M. dillonii*, *M. gulosa*, *M. kayakifolia*, *M. kuepferiana*, *M. luya*, *M. maryae*, *M. obnubilata*, *M. suizensis*, *M. voluptuosa*, and *M. ypsilocaule*), or from the type and a single paratype (12, *M. biremis*, *M. epieros*, *M. fortisiana*, *M. gaudialis*, *M. canoëifolia*, *M. gravabilis*, *M. hilarula*, *M. illecebrosa*, *M. jocularis*, *M. suizensis*, *M. umerulus*, and *M. weigendiorum*). A few species have a large number of collections, including *M. kuelap* and *M. pringleana*.

Colombia

1. *Macrocarpaea biremis* J.R. Grant, sp. nov. TYPE: COLOMBIA. Cauca: “La Gallera”, Micay Valley, forest, 2200–2600 m, herb, corolla greenish-yellow, 1 July 1922, Killip 8000 (Holotype: GH).

Macrocarpaea biremis belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Occidental, the Chocó of Colombia and Ecuador.

The leaves of *M. biremis* are reminiscent of *M. maguirei*, but more importantly, the inflorescence has similarities to *M. ericii*, *M. stenophylla* and *M. subsessilis*.

Etymology. From the Latin *biremis* [*bis-remus*], two-oared, for the pair of opposite leaves that resemble a pair of opposing oars on a sculling shell.

Paratype: COLOMBIA. Cauca: P.N. Nat. Munchique, El Tambo, vereda La Romelia, carretera de Entrada al Parque por el refugio de INDERENA, 2640 m, subarbusto erecto de 1.5 m de alto, corolla verde claro, 20 July 1993, *Velayos et al.* 6865 (MA).

2. *Macrocarpaea gaudialis* J.R. Grant, sp. nov. TYPE: COLOMBIA. Nariño: scrubby montane forest near El Encano, 2800 m, common shrub or small tree to 4 m tall, stems 3–4 cm in diameter, corolla creamy-yellow, the lobes recurved, 27 October 1972, *Weaver 2650* (Holotype: GH [2 sheets]; isotypes: AAU [2 sheets], BM, MO).

Macrocarpaea gaudialis belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Central of Colombia.

Etymology. From the Latin *gaudialis*, glad, or joyful, for its large panicle of bright cheerful flowers.

Paratypes: COLOMBIA. Putumayo: Sibundoy, hill north of valley, 2220–2270 m, February 1949 *Schultes 10415* (GH [2 sheets], NY)

3. *Macrocarpaea gondoloides* J.R. Grant, sp. nov. TYPE: COLOMBIA. Chocó: Municipio de Nóvita, ladera norte del Cerro Torrá, filo al oeste del Río Surama,

camino al Alto del Oso, 600-900 m, arbusto, 2 m, flores verdosas, 22 February 1977, *Forero et al.* 3158 (Holotype: MO; isotype: COL).

Macrocarpaea gondoloides belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Occidental, the Chocó of Colombia and Ecuador.

Etymology. Named for the oblique shape of the leaves, similar to that of an Italian *gondola*, a type of boat.

Paratypes: COLOMBIA. Chocó: Municipio de Nóvita, ladera norte del Cerro Torrá, filo al oeste del Río Aurama, Alto del Oso, 1000-1150 m, arbusto, 3 m, frutos verdes, bosque, 22 February 1977, *Forero et al.* 3226 (COL, MO); Municipio San José del Palmar, Cerro del Torrá, vertiente Occidental, hoyuela del Río Negro, vereda de Río Negro, ca 1 hora abao del helipuerto, 4 46' N, 76 29' W, 1800-1900 m, arbusto ca. 3 m, botones florales verde-amarillentos, 23 August 1988, *Ramos et al.* 1477A (COL). Nariño: Mpio. de Ricaurte, Resguardo Indígena Nulpe Medio, Andalucía, camino a Piguantís, 1 4' N, 18 15' W, 780 m, arbusto 2.2 m, flores blanco verdosas, estambres amarillos, 13 January 1996, *González & Ramírez P.* 1688 (QCA). ECUADOR. Carchi: Tulcan, Res. Etnica Awá, Parroquia El Chical, Centro San Marcos, bosque muy húmedo premontano, bosque primario alterado, terreno plano inundable, 01 06' N, 78 14' W, 750 m, arbusto de 1.5 m, en bosque secundario, borde de quebrada, botones florales verdes, flores amarillo-verdosas, 20-30 April 1990, *Méndez et al.* 231 (QCNE); Tulcan, Parroquia Chical, Sector Gualpi medio, Reserva Indígena Awá, Sendero a San Marcos al norte de la casa communal, bosque muy húmedo premontano, bosque primario, 01 02' N, 78 16' W, 3200 m, arbusto de 2 m, en bosque primario, frutos alargados verdes, 23-17 May 1992, *Tipaz et al.* 1051 (MO [2 sheets]); Tulcan, Reserva Indígena Awá, Comunidad San Marcos, 25 km al NW de El Chical, parroquia Maldonado, bosque pluvial premontano, 01 06' N, 78 14' W, 1500 m, herbácea de 50 cm de altura, en planicies, bajo bosque primario, infrutescencia verde, 16-30 November 1990, *Rubio et al.* 1077 (Holotype: MO; isotype: HAM).

4. *Macrocarpaea gravabilis* J.R. Grant, sp. nov. TYPE: COLOMBIA. Antioquia: Trail from Encarnación to Parque Nacional de los Orchídeas, western slope of the Cordillera, 1600-1800 m, herbaceous shrub 1 m, flowers light yellow, 27 January 1979, *Gentry & Renteria* 24569 (Holotype MO; Isotype COL).

Etymology. From the Latin *gravabilis*, troublesome. This species was particularly difficult to define, and therefore its name resulted from its difficulty.

Paratype: COLOMBIA. Caldas: La Selva, Pueblo Rico, 1500 m, 27 January 1946, *von Sneider* 5434 (S).

5. *Macrocarpaea gulosa* J.R. Grant, sp. nov. TYPE: COLOMBIA. N de Santander: Municipio de Toledo, 28.8 km de San Bernardo de Bata en la vía a Saravena, 1 km antes del parador, Alto de Santa Inés, 2300-2400 m, flores verdes, 1 November 1994, *Fernández Alonso et al.* 11794 (COL).

Macrocarpaea gulosa occurs on the Cordillera Oriental of Colombia.

Etymology. From the Latin *gulosus*, dainty, for its delicate inflorescence with slender pedicels.

6. *Macrocarpaea hilarula* J.R. Grant, sp. nov. TYPE: COLOMBIA. Meta: Hills above ranch house, Finca Balsillas, Upper Río Balsillas (part of old Hacienda Balsillas), 40 km ESE of Neiva, 2 53' N, 74 57' W, 2300 m, steep wet densely wooded ravine, shrub with single stem branched only near top, 3 m tall, top composed

of decussately arranged inflorescences, corolla campanulate, greenish-white, fruit immature, from a different plant, 7 December 1942, *Fosberg 19285* (Holotype: US [3 sheets]; isotypes: NO [3 sheets], S).

Macrocarpaea hilarula belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Oriental of Colombia.

Etymology. From the Latin *hilarulus*, cheerful, for its bright colorful inflorescence.

Paratype: COLOMBIA. Meta: Between Paso de Las Cruces and Buenavista, drainage of Río Tigre, Colombia-Urbe trail, 25 km ESE of Colombia, between Buenavista and La Rucio Pass, wet forest, level ground 1540 m, shrub, 24 December 1942, *Fosberg 19546* (US [2 sheets]).

7. *Macrocarpaea illecebrosa* J.R. Grant, sp. nov. TYPE: COLOMBIA. Putumayo: Páramo de San Antonio, entre La Laguna de La Cocha y el Valle de Sibundoy, 3000-3200 m, large shrub, flowers fetid, cream-yellow, 13 February 1942, *Schultes 3223* (Holotype: GH; isotypes COL, F)

Macrocarpaea illecebrosa belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Central of Colombia.

Etymology. From the Latin *illecebrosus*, full of allurements, alluring, attractive, or seductive, for its flowers that attract its pollinators.

Paratype: COLOMBIA. Putumayo: Mpio. San Francisco, km 83 margen derecha carretera a Mocoa, 2890 m, arbusto 4-5 m, flores de color amarillo claro muy vistoso, 18 November 1971, *López J. 447* (NY).

8. *Macrocarpaea jocularis* J.R. Grant, sp. nov. TYPE: COLOMBIA. Huila: Cordillera Oriental, SE side Quebrada de Riolora, 15 km SE of Gigante, dwarf forest type, 3050 m, shrub or small tree 6 m high, 5 cm DBH, bark gray, smooth, large tubular greenish flowers, 20 September 1944, *Little 8708* (Holotype: US; isotypes: COL, NO).

Macrocarpaea jocularis belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Oriental of Colombia.

Etymology. From the Latin *jocularis*, laughable, jocular. Named for the collector of the type, Elbert L. Little (1907-). In 1989, I arrived at the Smithsonian Institution from the University of Alaska for a summer internship to study Neotropical Bromeliaceae. I soon introduced myself to Dr. Little as I knew his book “Trees and Shrubs of Alaska” very well. On occasion for years afterwards, he would joke with me wondering if I had found any bromeliads in Alaska yet.

Paratype: COLOMBIA. Huila: Municipio Algeciras, Alto El Roble, via hacia Altamira, 2000-2400 m, arbolito de 5 m, hojas discolores, flores amarillo verdosas, 13 October 1993, *Orozco et al. 2801* (COL).

9. *Macrocarpaea lacrossiformis* J.R. Grant, sp. nov. TYPE: COLOMBIA. Santander: Municipio de Gambita, Corregimiento Talandro, 2200 m, arbol 7 m, haz verde oscuro, semilustroso, nervadura central amarillento, cáliz verde amarillento, corola amarillo verdoso, filamentos amarillo verdoso, estigma verde, 14 February 1983, *Orozco 1060* (holotype COL [2 sheets]).

Tree to 5-8 m tall; stems terete to subquadrangular, solid, up to 13 mm in diameter on herbarium specimens, but certainly larger, glabrous. Leaves petiolate, obovate to rarely elliptical, (9)-12-25 x (4)-5.5-11.0 cm, broadest above middle,

glabrous, coriaceous, the apices rounded, the bases attenuate, the upper surface dull; petiole 5-30 mm long.

Macrocarpaea lacrossiformis belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Oriental of Colombia.

Etymology. Named for the obovate shape of its leaves that resembles the outline of the stick used in the sport Lacrosse. *Lacrosse* is the name given by early French settlers in North America to the sport played by Native Americans, especially the Iroquois. The French name *la crosse* was the generic term for any game played with a curved stick or *crosse*, and a ball.

Paratypes: COLOMBIA. Boyacá: Municipio de Gámbita, Vereda el Taladro, 2100 m, arbolito 8 m, haz verde oliva, envés verde claro, cáliz verde pálido, corola crema, 19 October 1983, *Lozano C. 3931* (COL [2 sheets]); Municipio de Arcabuco, La Cumbre, Bosque de Robles, 2300 m, arbol +/- de 5 m, haz verde citrino, envés verde amarillento, cáliz verde amarillento, corola crema, estambres blancos, 8 October 1980, *Lozano C. & Díaz 3721* (COL); Río Pomera, 12 km NW of Arcabuco, thicket on steep slopes, 2805 m, 4 m shrub, corolla greenish yellow, fragrant, 20 August 1944, *St. John 20678* (NO, US); Tota, 3200 m, de 2 m, December 1951, *Yepes-Agredo 3374* (COL). Santander: Municipio Charalá, Corregimiento de Virolín, camino de quebrada desde la carretera Virolín-Duitama a la Chorrera en la Cuchilla “El Venado”, 2000 m, arbolito de 5-6 m, flor blanco amarillento, 17 October 1985, *Castro & Rodriguez 1011* (COL); Municipio de Charalá, Corregimiento de Virolín, Sitio Cañaverales, 2170 m, arbusto, haz verde oliva, envés más claro, pétalos amarillo-pálido, filamento verde claro con estigma anteras blanca, 19 October 1983, *Torres R. 2637* (COL).

10. *Macrocarpaea maryae* J.R. Grant, sp. nov. TYPE: COLOMBIA. Chocó: North ridge of Alto de Buey, premontane wet forest, east-southwest of El Valle, 500-1150, shrub 3 m, flowers greenish-yellow, 8 August 1976, *Gentry & Fallen 17369* (Holotype: COL [2 sheets]; isotype: U [2 sheets]).

Etymology. Named in honor of co-collector of the type, Apocynaceae specialist Mary E. Fallen (1949-), now Mary E. Endress, Institute of Systematic Botany, Universität Zürich, Switzerland.

Macrocarpaea maryae has large thin leaves, some of the broadest in the genus. The Chocó region is known for species with large leaves (XXXX).

11. *Macrocarpaea umerulus* J.R. Grant, sp. nov. TYPE: COLOMBIA. Boyacá: Sierra Nevada del Cocuy, in cloud forest near Bocota, by path to Bachira, 2200 m, woody herb to 2.5 m, flowers bright green, anthers greenish, 15 August 1957, *Grubb et al. 708* (holotype: US; isotype K).

Macrocarpaea umerulus belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Oriental of Colombia.

Etymology. From the Latin *umerulus*, a little shoulder. The name derives from the nodding (or shoulder-shaped) position of the pedicel, coined when I had a cast on my right shoulder after breaking it in a rollerblading crash in Avenches, Switzerland on September 1, 2001.

Paratype: COLOMBIA. Boyacá: Vereda El Carare, arbusto de 4 m, flores verde pálido, 3 August 1978, *Snow 22* (COL).

12. *Macrocarpaea ypsilocaule* J.R. Grant, sp. nov. TYPE: COLOMBIA. Putumayo: Páramo de San Francisco (la Depresion), en el camino carretero de San Francisco a Mocoa, 3000-3100 m, January 1942, *P. Fray Miguel* 57 (Holotype: F).

Macrocarpaea ypsilocaule belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Central of Colombia.

Etymology. From the Greek *ypsilo* (the letter “Y”) and *caulis* (stem) to emphasize the unique “y-shaped” bifurcated branching pattern of the inflorescence.

Ecuador

13. *Macrocarpaea elix* J.R. Grant, sp. nov. TYPE: ECUADOR. Azuay: highway Cuenca-Cola de San Pablo, km 88, secondary forest, 2540 m, shrub 1.5 m, flowers pale yellow, aromatic, 14 February 1977, *Boeke & Loyola* 988 (Holotype: NY; isotypes: AAU, QCA).

Etymology. From the Latin *elix*, a channel for diverting a stream, to emphasize the deep groove along the leaf petiole.

Paratypes: ECUADOR. Azuay: The eastern Cordillera, 1-8 km north of the village of Sevilla de Oro, 2440-2745 m, trees to 5 m, leaves deep green, subnitid above, pale green below, corolla pale lemon yellow, 27 July 1945, *Camp* 4325 (NO, S, U). Morona-Santiago: Along Río Tintas below Arenillas, dense forest between Campanas and Arenillas, along Río Tintas, 10 leagues SE of El Pan, 2195 m, corolla pale greenish, leaves dark green above, pale green below, shrub to small tree 5-10 m tall, 13 July 1943, *Steysmark* 53548 (F [2 sheets], US). Cañar: Pass on road Azogues-Taday, dry “ceja” scrub, 3100 m, treelet 4-5 m tall, corolla greenish-yellow, 30 March 1985, *Harling & Andersson* 23442 (GB, QCA). Above Rivera on road to Pindilig, forest remnants, 2800 m, shrub or treelet to ca. 4 m tall, corolla greenish yellow, 9 March 1985, *Harling & Andersson* 23031 (Holotype: GB; isotype: QCA)

14. *Macrocarpaea gattaca* J.R. Grant, sp. nov. TYPE: ECUADOR. Pichincha: Vía San Juan-Chiriboga-Empalme, 2550 m, arbusto de 2 m, flores gamopétalas, cáliz verde, corolla amarillenta-verdosa, 10 September 1977, *Jaramillo* 22 (Holotype: NY; isotypes: AAU, QCA).

Macrocarpaea gattaca belongs to *Macrocarpaea* sect. *Macrocarpaea*, and occurs on the Cordillera Occidental, the Chocó of Colombia and Ecuador.

Specimens of this species have been previously identified as *Macrocarpaea sodiroana*. Due to the lumping of morphologically similar specimens into that species (and the name turns out to be a synonym of *Chelonanthus alatus*, see below), and an initial difficulty to find the discrete morphological characters to form meaningful species delimitations, a molecular analysis of a several specimens of *M. sodiroana* was undertaken. The results clearly showed the polyphyletic nature of *M. sodiroana* sensu lato, necessitating an examination of the taxonomy of this group. A detailed account of the former “*Macrocarpaea sodiroana* complex” will be provided in a future installment of this series. The most clearly defined “segregate” of *M. sodiroana* is here described as *Macrocarpaea gattaca*.

The specimens of *Webster et al.* 28902 have an immature inflorescence. The unique floral characters of *M. gattaca* differentiating it from *M. sodiroana* are therefore unavailable. Nevertheless, the leaf morphology seems to suggest a better placement in *M. gattaca* than *M. sodiroana*. However, the locality is better known for *M. sodiroana*, and the placement of *M. gattaca* at Maquipucuna would be a slight though not unlikely range extension.

Etymology: The name derives from the four letters A, C, G, T that represent the DNA nucleotides Adenine, Cytosine, Guanine, and Thymine. Molecular research helped identify this as a distinct species.

Paratypes: ECUADOR. Pichincha: Salvador, between San Juan and Chiriboga, shrubby slope, 2600 m, tree about 5 m high, flowers pale green, 28 October 1955, *Asplund 18200* (S); Carretera Quito-Las Palmas-Palmeras, 2800 m, arbusto escandente de 3 m, de large, en borde de carretera, 29 November 1986, *Freire 456* (AAU, QCA); 67 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road, 26 February 2002, *J.R. Grant & Torres 02-4209* (NEU, NY, US); Via San Juan-Chiriboga, km 33 desde Quito, bosque de 10 años de edad, sobre pendiente y areas de vegetación secundaria, 2700 m, planta de vegetación secundario, dicho ser arbolito con hojas opuestas de 1 m t large, frutos inmaduros color verdes, 2 April 1976, *Oldeman 3449* (NY, QCA); Canton Quito, Parroquia Nanegal, Montañas de Maquipucuna, Cerro Sosa and ridge adjacent to Cerro Montecristi, primary rain forest, 00 04-05' N, 78 37' W, 2100-2200 m, 9 July 1991, *Webster et al. 28902* (DAV, MICH, QCNE, MO, TEX).

15. *Macrocarpaea pringleana* J.R. Grant, sp. nov. TYPE: ECUADOR. Pastaza: Puyo-Puerto Napo Road, 14-18 km N of Puyo, heavily cut over forest, now pasture with remnant tree, 1000-1025 m, shrub to 3.5 m tall, calyx and ovary green, corolla yellowish-green, common, 25 April 1978, *Luteyn & Lebron-Luteyn 5830* (holotype NY; isotype GH [2 sheets]).

Etymology. Named for James S. Pringle (1937-), Royal Botanic Gardens, Hamilton, Ontario, Canada, student of North and South American Gentianaceae, author of the treatment of the family in the *Flora of Ecuador* (1995).

Paratypes: ECUADOR. Morona-Santiago: 2-4 km N of Arapicos, 800-900 m, shrub 1 m high, flowers green, 4 April 1981, *Lugo S. 5980* (GB); 2-6 km S of Arapicos, 800-900 m, herb 1.5 m high, flowers green, 6 April 1982, *Lugo S. 6003* (GB). Napo: Tena-Pano road, 550 m, 18 July 1982, *Besse et al. 1668* (SEL); Reserva Ecologica Antisana, comunidad Shamato, entrada por km 21 - Shamata, 1700 m, 23-Apr 1998, *Clark, J.L. et al. 5029* (QCNE); Reserva Ecologica Antisana, Sector Guacamayos, sendero Jumandy- La Virgen (km 30), 1700-1800 m, 1 May 1998, *Clark, J.L. et al. 5480* (QCNE). Pastaza: Mera, forest on precipitous bank of Río Pastaza, 1050 m, herb to 3 m high, flowers light green, 21 December 1955, *Asplund 18939* (S 2 sheets); Hacienda San Antonio de Baron von Humboldt, 2 km al NE de Mera, 1300 m, 5 March 1985, *Baker et al. 5509* QCNE); Road N from Mera known as the "via Anzu", remnants of premontane humid forest, 01 20' S, 78 10' W, 1100 m, shrub 2 m tall, flowers yellow, 1 January 1988, *Boom et al. 7884* (NY, QCA, QCNE); El Topo, 1250 m, 28 November 1959, *Harling 3413* (S); Mera, along Río Allpayacu, riverside thickets, 1000 m, shrub with lignified main stems, car. 3 cm in diameter at the base and ca. 2 m high, corolla yellowish green, 6 March 1980, *Harling & Andersson 16984* (GB 2 sheets); Mera, 1100 m, 25 May 1968, *Harling et al. 10208* (GB); Mera, trail to Pindo, 1000 m, semi-liane 2 m, flowers greenish-yellow, 16 January 1982, *Harling et al. 19621* (GB); Cabeceras on the Río Bobonaza, ca. 12 km E of Puyo, ca. 2 m high, corolla and stamens green, 16 November 1974, *Lugo S. 4618* (GB, U); Veracruz (Indillama), ca. 1 m high, corolla green, 22 November 1974, *Lugo S. 4656* (GB); Between Baños and Mera, near Rio Negro, 400-500 m, shrub 4 m high, flowers greenish yellow, occasional, 23 February 1935, *Mexia 6977* (NA, UC, US); Between Mera and Río Negro, 27 km from Puyo on road to Baños, 1 km N of the road, primary mountain rainforest, 01 25' S, 78 11' W, shrub 1-2 m tall, corolla

yellow-green, 1300-1400 m, 14 January 1988, *Molau et al. 2469* (AAU, GB, HAM, QCA, QCNE); Hacienda San Antonio de Baron von Humboldt, 2 km al NE de Mera, 01 27' S, 78 06' W, 1100 m, bosque pluvial premontano, bosque perturbado y margenes, hierba de 2.5 m, lenosa en la base, fruto verde, en la margen del bosque, 27 February - 19 March 1985, *Neill et al. 5809* (HAM, QCNE); Minic. Puyo, Canton Puyo, Los Vencedores, Estacion Experimental E.S.P.O.C.H., about 30 minutes by car south of Puyo, premontane tropical rain forest, 01 30' S, 77 56' W, subshrub to 3 m tall, flower buds light greenish yellow, open flowers light yellow, fruits dry, 800-1040 m, 14 December 1995, *Soejarto et al. 9424* (F 2 sheets); Puyo, Los Vencedores, Estacion Experimental E.S.P.O.C.H., 8 June 1996, *Soejarto et al. 9645* (F); Río Cayabe, between Mera and Río Topo, tropical rain forest along a ravine, 1100 m, 17 July 1967, *Sparre 17619* (S). Tungurahua: Río Topo, 1220 m, shrub about 3 m high, flowers light green, 12 November 1955, *Asplund 18364* (S); Baños, Parroquia Río Verde, sector Machay, collections made on forested trail starting from Machay (Baños-Puyo road) to Río Verde, 01 23' 05" W, 078 16' 50" W, 1800-2200 m, tropical montane wet forest, terrestrial herb 0.5 m tall, corolla yellow and campanulate, 24 December 2000, *Clark, J.L. et al. 5724* (QCA, US); Between Ambato and Banos, 10 January 1981, *D'Arcy 14014* (HAM, MO, NY); Cashurco, near Río Negro, northern side of Rio Pastaza, ca. 1.0-1.5 m high, corolla green, 18 March 1969, *Lugo S. 813* (GB); Baños, Zona de amortiguamiento del Parque Nacional Llanganates, Río Verde, 1630 m, 29 July 1999, *Vargas, H. 3634* (QCA, QCNE).

Peru

16. *Macrocarpaea canoëifolia* J.R. Grant, sp. nov. TYPE: PERU. Junín: Tarma, Agua Dulce, 2000 m, along a steep path in the forest, tree 4 m, flower very fleshy, white-creamy-green, pistil and stigma green, stamens white, anthers palest brown, calyx and stalk pale green, stem brownish-green, leaf velvety, thin, glossy, with thick veins, one plant seen, 5 March 1948, *Woytkowski 35417* (holotype F; isotype UC).

Etymology. Named for Alwyn H. Gentry (1945-1993), a great collector of tropical American plants.

Paratypes: PERU. Junín: Chilpes, 8 km S of Vitoc, trail along steep slopes overlooking Río Tulumayo, 11 12' S, 75 20' W, 1420-1700 m, shrub 2 m, flowers greenish cream, 8 February 1983, *Gentry et al. 40187* (HAM).

Macrocarpaea canoëifolia belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Eastern slopes of the central Peruvian Andes.

17. *Macrocarpaea dillonii* J.R. Grant, sp. nov. TYPE: PERU. Amazonas: Prov. Amazonas, Dist. Vista Alegre, Puente sobre el Río Salas, 6 10' S, 77 19' W, 1525 m, bosque perennifolio, arbusto, 2-3 m de alto, cápsulas cilíndrico-cónicas, 30 June 1998, *Sánchez Vega, Dillon & Zapata 9572* (CPUN, F, HAO, U).

Etymology. Named for Michael O. Dillon (1947-), of the Field Museum of Natural History, Chicago, Illinois, U.S.A. (F), prolific collector of Peruvian plants.

18. *Macrocarpaea ericii* J.R. Grant, sp. nov. TYPE: PERU. Cajamarca: San Ignacio, Huarango, Localidad Romerillo, Cordillera entre Romerillo y Nuevo Mundo, vegetación primaria con predominancia de árboles enanos, 05 14' 00" S, 78 46' 00" W, 2300 m, sufrutice 1 m, flores amarillas, 27 July 1997, *Campos, Rodríguez, & Nuñez 4296* (Holotype MO).

It differs from *M. subsessilis* in larger obovate leaves (4-17 vs. 2.5-9 cm), and larger inflorescence (8-44 vs. 3-11 cm long) with fewer-flowered cymes (1-3 vs. 2-8).

Unbranched shrub, 1—1.6 m, glabrous throughout. Stems terete to slightly quadrangular, solid, 3—8 mm in diameter just below inflorescence. Leaves obovate, varying to slightly elliptic, short-petiolate, (4)7—15 cm long; blades (3.4)6—13 x (2.5)4.5—8.5 cm, entire, slightly revolute, dark above and below, lateral veins scarcely visible either above or below, glabrous, thick, leathery-coriaceous; base aequilateral to oblique, cuneate to rounded; apex rounded to obtuse. Petioles 6—2 mm long, robust with strong open vagination one half the length of the petiole; interpetiolar ridge 2—5 mm high. Inflorescence a few branched open thyrses, 8—44 cm long; branches 3—28 cm long, 1—3 flowered per cyme. Bracts obovate to oblanceolate, petiolate, 25—55 x 13—23; base aequilateral, cuneate; apex rounded to obtuse; bract petioles 5—8 mm long. Flowers pedicellate, erect to spreading, 3—22 mm long; bracteoles linear to oblanceolate, 5—20 x 2—5 mm. Calyx campanulate, 8—11 x 6—8 mm, glabrous, faintly verrucose, ecarinate, ovate to elliptic; calyx lobes 4—5 x 3.5 mm, rounded to obtuse. Corolla funnel-shaped, 20—30 mm long, 11—14 mm wide at the apex of the tube, yellow to greenish-yellow, smooth; corolla lobes ovate to elliptic, 6—10 x 5—8 mm, apex obtuse to rounded. Gynoecium and androecium unknown. Capsules ovoid to ellipsoidal, 16—20 x 8—10 mm, smooth, faintly verrucose to pustulate, straw-colored, erect to slightly nodding; style remnant 5—10 mm long. Seeds angular to polyhedral to flattened (pyramids, tetrahedrons, rectangular prisms, to multi-sided prisms), 2—5-sided, not winged, 0.5—1.0 x 0.3—0.5 mm, straw-colored, rugose-reticulate.

Macrocarpaea ericii is a distinct endemic of Cajamarca easily recognized by its thick leathery obovate leaves, and flowers that are subtended by a pair of spatulate bracteoles. It is related to *M. subsessilis* Weaver & J.R. Grant of Loja, Ecuador, and the two may be referred to as sister species across the Huancabamba depression. It differs from *M. subsessilis* in larger obovate leaves (4-17 vs. 2.5-9 cm), and larger inflorescence (8-44 vs. 3-11 cm long) with fewer-flowered cymes (1-3 vs. 2-8). In the broad sense, *M. ericii* may be related to *M. loranthoides* (Griseb.) Maas (Peru: Amazonas), *M. luya* J.R. Grant (Peru: Amazonas), *M. stenophylla* Gilg (Peru: Amazonas, Cajamarca), and *M. subsessilis* Weaver & J.R. Grant (Ecuador: Loja).

Etymology. Named for Eric Frank Rodríguez Rodríguez (1963-), Herbarium Truxillense, Universidad Nacional de Trujillo, Peru (HUT), prolific collector of Peruvian plants, and co-collector of the type.

Paratypes: Peru. San Ignacio: San José de Lourdes, Localidad Estrella del Oriente “Cerro del Oso”, vegetación enana, 04 46' S, 78 59' W, 1600-1700 m, sufrutice 1.2 m, flores amarillas, cápsulas verdes, 6 September 1997, *Campos & Diaz 4410* (NEU, U [2 sheets]); San Ignacio, near San José de Lourdes, llanos, forest remnants, peat bog and open jalca area over sandstone, 1900-2100 m, shrub in dryish areas in grassland, leaves strongly coriaceous, dark green, flowers strongly zygomorphic, pale greenish yellow, 10 June 1998, *Weigend et al. 98/500* (M). Piura: Cordillera de San José, páramo 1700 m, flores verdosas, 23 September 1961, *Friedberg 692* (USM).

19. *Macrocarpaea fortisiana* J.R. Grant, sp. nov. TYPE: PERU. Puno: Sandia, near Sagrario, on trail, 1000-1300 m, perennial herb 2 m high, calyx and corolla yellow green, fruit yellowish green, moist open places on stream bank, much fog and rain, 26 May 1942, *Metcalfe 30629* (G, GH, MO, UC, US).

Macrocarpaea fortisiana belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Puna of Peru and Bolivia.

Etymology. Named for Ernest Fortis (1945-), herbarium manager at the Laboratoire de botanique évolutive, Institut de botanique, Université de Neuchâtel, Switzerland (NEU), who has processed all the incoming and outgoing loans during the course of my studies on *Macrocarpaea*.

Paratypes: Peru. Puno: Sandia, St. Domingo area, 1550 m, green flowers, bush 2 m, used as remedy for falling hair, of name “campanilla”, 10 April 1940, *McCarroll 128* (NY).

20. *Macrocarpaea fosteri* J.R. Grant, sp. nov. TYPE: PERU. Pasco: Oxapampa, road in construction between Oxapampa and Villa Rica, km 7 SE from Miraflores crest, steep forested ridge slopes, 75° 20' W, 10° 37' S, 2100-2400 m, arching shrub, 3-4 m, cream-colored campanulate flowers, 11 October 1982, *Foster, R. 9114* (holotype MO; isotypes HAM, USM).

An impressive number of seven species occur in the area around Oxapampa, six of which are described in this paper: *M. angustifolia*, *M. fosteri*, *M. ostentans*, *M. pajonalis*, *M. suizensis*, *M. tahuantinsuyuana*, and *M. voluptuosa*.

Probably related to *M. suizensis*.

Etymology. Named for Robin B. Foster (19—), Field Museum of Natural History, Chicago, Illinois, U.S.A (F), prolific collector of Peruvian plants.

Paratypes: Peru. Pasco: Oxapampa, Pichis Valley, San Matias Ridge, 10-12 km SW of Puerto Bermúdez, above Santa Rosa de Chivis, trail to Puerto Nuevo, 75° 00' W, 10° 20' S, 500-900 m, shrub 3 m, fruit dry, shedding seed, 8 September 1982, *Foster, R. 8610* (HAM, USM); Oxapampa, Río San Alberto, Abra Esperanza, 75° 20' W, 10° 31' S, 2400-2700 m, steep forested slopes and mossy ridgetop, green shrub 2 m, fruit green, 28 June 1985, *Foster, R. et al. 10262* (USM); Cordillera Yanachaga, new road in construction from Oxapampa to Villa Rica, 7-9 km E of main road, 10° 40' S, 75° 20' W, 2100-2500 m, montane cloud forest, herbaceous treelet 3 m, flowers cream, 1 March 1982, *Gentry & D.N. Smith 35842* (USM); Oxapampa, road to “Pajonal” (Antenna of Oxapampa) and on to Villa Rica, 10° 37' 19” S, 75° 17' 26” W, 2515 m, treelets ca. 2 m tall in recently opened forest, otherwise probably subscandent, flowers pale yellow, normally growing in the closed forest under canopy, 17 September 2001, *Weigend et al. 5777* (BSB).

21. *Macrocarpaea innarrabilis* J.R. Grant, sp. nov. TYPE: PERU. Amazonas: Rodrigues de Mendoza, low forests of the eastern slopes of the Andes, 1400-2500 m, tree, fleshy white flowers, July-August 1963, *Woytkowski 8018* (U);

Etymology. From the Latin *innarrabilis*, indescribable.

Paratypes: PERU. Amazonas: Prov. Luya, Camporredondo, Tullanga, loma entre primer Campamento, Pascoma Pampa y Paseana “La Palma”, 2550 m, arbolito 4-5 m, frutos verde-amarillentos, 8 September 1989, *Díaz & Campos, 3853* (USM); Amazonas: Yambasbamba, *Matthews 1314* (K); Bagua District, Imaza, Tayu Majaji, Comunidad Nativa de Wawas, bosque primario, vegetación de 2 m, de alto promedio, Uwejush, 05° 15' S, 078° 22' W, 1100 m, arbusto 1.5 m, flores amarillentas, 7 February 1999, *Vásquez et al. 26057* (NEU, U). Without locality, “Voyage à l'Équateur et au Pérou”, 1876-1877, *Vidal-Sénèze s.n.* (P).

22. *Macrocarpaea jalca* J.R. Grant, sp. nov. TYPE: PERU. Cajamarca: Prov. Cutervo, 10 km NW of Socota, ceja de la montaña, in part shade, 3200 m, shrub to 0.3

m, corolla greenish when young, turning more yellowish, fruit remains of last year show dry dehiscent pods, leathery-leaved vigorous-growing shrub, 10 December 1938, *Stork & Horton 10118* (Holotype: US; isotypes: F, K, UC).

Etymology. From the name of the vegetation type in which it occurs, the jalca vegetation of northern Peru.

Paratypes. PERU. Cajamarca: Prov. Cutervo, Distrito San Andrés de Cutervo, P.N. de Cutervo, Caserío “Pajonal”, hacia la fila, camino hacia Jaén (Chorro Blanco), 2600 m, arbol 2 m muy ramoso, frutos verdes, 10 August 1987, *Díaz & Osores 2584* (USM); Cutervo, San Andrés de Cutervo, P.N. de Cutervo, 2400 m, arbusto 1.5 m, flores amarillo verdosas, 14 March 1989, *Díaz et al. 3262* (USM); Cutervo, San Andrés de Cutervo, P.N. de Cutervo, “jalca” camino a la Laguna “El Pileo”, 2680 m, arbusto herbáceo 3 m, flores amarillo cremosas, 15 March 1989, *Díaz et al. 3326* (HAM, USM); Cutervo, San Andrés de Cutervo, P.N. de Cutervo, Entrada por “Chorro Blanco”, sobre incernas del Sr. Nicolás, 2300-2400 m, 2300-2400 m, 11 January 1990, *Díaz et al. 3942* (HAM); Cutervo, Cerros de Cutervo, 2700-2800 m, arbusto, 2 August 1946, *Ferreira 873* (USM); Cutervo National Park, Chorro Blanco region, ca. 15 km N of San Andres de Cutervo, 06 10' S, 78 45' W, 2650-2750 m, tree 4 m, fruits green, 13 September 1991, *Gentry et al. 74765* (U); Cutervo, Lo Hucan Cutervo, 2850 m, 24 January 1959, *Nuñez 7162* (Z); P.N. Cutervo, San Andres de Cutervo, 2350-2430 m, shrub to 3 m, corolla yellowish-green, 14 March 1989, *Smith J.F. & Díaz 1558* (GB, WIS).

23. *Macrocarpaea kayakifolia* J.R. Grant, sp. nov. TYPE: PERU. Huánuco: Carpish Hills, trail downslope from San Pedro de Carpish, 3 km E of tunnel, dense cloud forest and forest edge, 09 42' S, 76 05' W, 2250-2450 m, arborescent shrub to 5 m, corolla pale yellow-green, fruits green, elongate, 15 January 1987, *Stein et al. 3864* (Holotype: USM; isotypes: HAM, NEU, U).

Macrocarpaea kayakifolia is known only from its type material. It is nevertheless a distinct species related to *M. angustifolia* also of Peru. It occurs on the Eastern slopes of the Peruvian Andes.

Etymology. From the Eskimo *qajak*, transliterated to *kayak* in Indo-European languages, and leaf, “folia”, for the shape of the outline of the leaves that looks like a kayak.

Approaches *M. angustifolia* J.S. Pringle.

24. *Macrocarpaea kuelap* J.R. Grant, sp. nov. TYPE: PERU. Amazonas: Prov. Bongará, between Río Utcubamba and Pomacocha, km 327 east of Olmos and Rioja road, 2160-2210 m, 31 January 1964, *Hutchinson & Wright 3903* (Holotype: US [2 sheets]; isotypes: F, K, MO, NY [2 sheets], UC [2 sheets], USM [2 sheets]).

Etymology. Named after the pre-Columbian Chachapoya fortress Kuelap, situated within the distribution of this species.

Paratypes: PERU. Amazonas: entre D'Agua and Molinopampa, 06 12' 515" S, 077 42' 914" W, 2095 m, single-stemmed tree to 6 m, branching above 3 m from an otherwise unbranched trunk, flowers yellow, 28 January 2001, *J.R. Grant & Rodríguez 01-3942* (G, HUT, NEU [2 sheets], NY, US [2 sheets]); Chachapoyas, Kuelap Fortress and surrounding, 06 25' 13.5" S, 077 47' 56.8" W, 3000 m, tree with yellow flowers, 16 May 1002, *Henning & Schneider 250* (NEU); *Matthews 2118* (BM, K); Prov. of Chachapoyas, *Matthews 3162* (BM); Chachapoyas, *Matthews 8110* (K); Chachapoyas, Cerro Puma Urco, June 1952, *Soukup 4056* (US); Bongará, Laguna Pomacocha, ridge NE of lake, wet cloud forest with patches of rocky open

glades, 5 50' S, 77 52' W, 2450-3350, shrub c. 2.5 m, flowers yellow, stems suffused with gold, 7 February 1985, *Stein & Todzia 2104* (HAM, NEU, USM, U); a few km from Molinopampa, scrub on sandy soil with rock outcrops, shrub 2 m, fruits green, 14 March 1998, *van der Werff et al. 14961* (U); remnants of forest around Laguna Pomacochas, partly on white sand, 05 50' 11" S, 077 57' 47" W, 2250 m, shrub 3 m, flowers yellow, 20 March 1998, *van der Werff et al. 15255* (U); Chachapoyas, cloud forest between Molinopampa and Mendoza, 10 km E of Molinopampa, 2400m, shrub 5 m, woody, corolla cream-colored, 23 February 1978, *Wasshausen & Encarnación 996* (US, USM); Chachapoyas, road from Chachapoyas to Mendoza, 2200 m, 20 October 2000, *Weigend et al. 2000/892* (MSB); Central Cordillera of the Andes, Chachapoyas to Moyobamba, 2700-3300 m, rare weed, edge of path, 21 January 1930, *Williams 7596* (F); Road to Levanto from Chachapoyas, 7 January 1972, *Wolfe 842* (NA); in hills above city of Chachapoyas, shrub 2-3 m tall, about 3-4 seasons old judging from dichotomies in stem and their termination by infrutescences, leaf sizes very variable depending on vigorous shoot, at the beginning of the shrubby zone, 2 January 1972, *Wolfe & Dobson 711* (US); Chachapoyas, in hills above the city of Chachapoyas, shrub 3 m, flowers pale yellow, 4 January 1972, *Wolfe & Dobson 754* (GH); Prov. Chachapoyas, middle and upper slopes of Puma-urca southeast of Chachapoyas, 2500-2700 m, tree 3-6 m, corolla pale green, locally frequent in open scrub forest, 25 May 1962, *Wurdack 524* (F, NY, US, USM). Cajamarca: Cajamarca, Chota, near Las Palmas, ca. 24 km NE of Chota, fragmented montane forest pockets, 6 29' 25" S, 78 37' 25" W, 2789 m, tree to 8 m, flowers cream-yellow, 17 April 1993, *Dillon et al. 6340* (HAO); Cajamarca, Chota, near village of El Campamento, ca 21 km WNW of Huambos, fragmented montane forest, 6 24' 23" S, 79 01' 19" W, 2740 m, trees to 6 m, flowers yellow, 20 April 1993, *Dillon et al. 6432* (HAO). PERU. Without province or locality: *Nee s.n.* (MA).

25. *Macrocarpaea kuepferiana* J.R. Grant, sp. nov. TYPE: PERU. Puno: Carabaya, San Gabán, Hda. Quillabamba pte. Ario, ladera abierta, 950-1000 m, 8 February 1967, *Vargas 18928* (CUZ).

Macrocarpaea kuepferiana is known only from its type specimen. It is a distinct species related to *M. bangiana* of Bolivia.

Etymology. Named for Philippe Kuepfer (1942-), Professor of Botany, Laboratoire de botanique évolutive, Institut de botanique, Université de Neuchâtel, Switzerland (NEU).

26. *Macrocarpaea luya* J.R. Grant, sp. nov. TYPE: PERU. Amazonas: Prov. Luya, Camporredondo, Tullanga, Cerro Huicsocunga o Condorpuna, 3310 m, arbusto 6 m, frutos verdes, 3 September 1989, *Díaz & Campos 3786* (Holotype: USM; isotype: MO).

It differs from *M. loranthoides* in its 6 m tall tree habit, more broadly elliptical-obovate leaves (vs. oblong to oblong-obovate), larger calyces and large fruits (22-30 vs. 9—14 mm long).

Robust tree, much branching, 6 m, glabrous throughout. Stems terete to slightly quadrangular, solid to hollow, 4—10 mm in diameter just below inflorescence. Leaves elliptic, varying to slightly ovate to obovate, short-petiolate, 3.5—5.5 cm long; blades 3.4—5.1 x 2—3 cm, entire, slightly revolute, thick, leathery-coriaceous, lateral veins scarcely visible above, but more pronounced below; base aequilateral to slightly oblique, cuneate to rounded; apex rounded to obtuse. Petioles 1—4 mm long, robust with strong open vagination nearly equalling the

length of the petiole; interpetiolar ridge 2—3 mm high. Inflorescence a few branched nearly sessile thyrse, 4—6 cm long; branches 3—5 cm long, 1—3 flowered per branch. Bracts elliptic to slightly obovate, sessile to petiolate, 11—20 x 7—11 mm; base aequilateral, cuneate to rounded, apex rounded to obtuse; bract petioles 0-2 mm long. Flowers pedicellate, erect to slightly spreading, but never nodding; pedicels 17—22 mm long; bracteoles elliptic, obovate to spatulate, 9—12 x 4—6 mm. Calyx campanulate, 12—14 x 9—12 mm, glabrous, faintly verrucose, ecarinate, ovate to reniform; calyx lobes 4—6 x 5—8, apex rounded. Corolla unknown. Capsules dry, bilocular, medially dehiscent, ellipsoidal, 22—30 x 8—10 mm, smooth, faintly verrucose to pusticulate, light brown, erect; style remnant 3—4 mm long. Seeds unknown.

Macrocarpaea luya is known only from its type specimen from Amazonas, Peru. It is a distinct species related in the broad sense to *M. ericii* J.R. Grant (Peru: Cajamarca, Piura), *M. loranthoides* (Griseb.) Maas (Peru: Amazonas), *M. stenophylla* Gilg (Peru: Amazonas, Cajamarca), and *M. subsessilis* Weaver & J.R. Grant (Ecuador: Loja). The characters that unite this loose assemblage of species are their thick leathery obovate leaves, short generally few-flowered inflorescences, and rimmed seeds that are polygonal. These species are a unique group since according to molecular data belong to sect. Huancabambigenes (which in the large majority of species have winged seeds). Perhaps some sort of reversal has occurred. It differs from *M. loranthoides* in its 6 m tall tree habit, more broadly elliptical-obovate leaves (vs. oblong to oblong-obovate), larger calyces and large fruits (22-30 vs. 9—14 mm long).

Macrocarpaea luya occurs in the region of Chachapoyas where five species of the genus occur: *M. kuelap* J.R. Grant, *M. loranthoides* (Griseb.) Maas, *M. luya* J.R. Grant, *M. stenophylla* Gilg, and *M. zophoflora* Weaver & J.R. Grant. *Macrocarpaea kuelap* and *M. zophoflora* are tall trees to 6 m that generally occur at lower elevations (2000-3000 m), while *M. loranthoides* and *M. stenophylla* are less than 2 m tall shrubs of scrubby areas at generally higher elevations (2400-3400 m). *Macrocarpaea luya* fits in somewhere in the middle in being a tall 6 m tree, occurring at an elevation of 3310 m, with a morphology similar to that of *M. loranthoides* and *M. stenophylla*.

Etymology. Named for the province in which it was collected, Luya Province, of Amazonas Department, Peru.

27. *Macrocarpaea normae* J.R. Grant, sp. nov. TYPE: PERU. Cuzco: Convención, Choquellohuanca-Lucumaya, 1700 m, arbusto 3 m, corolla blanca-crema, 28 April 1944, *Vargas 4196* (Holotype: CUZ; isotypes: MO, NY)

Macrocarpaea normae belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Puna of Peru and Bolivia.

Etymology. Named for Norma Salinas Revilla (1967-), Univ. Nacional San Antonio Abad de Cusco, Peru (CUZ), with whom I went plant collecting in Cuzco.

Paratypes: PERU. Cuzco: St. Domingo, 1550 m, 10 April 1940, *McCarroll 128* (NY); Convención, Hda. Potrero, Garavito, bosques, bordes claros, 2000 m, 13 May 1960, *Vargas 13206* (CUZ); Paucartambo, Pillawata-Perolnino, bosque ralo, 2800 m, 9 April 1969, *Vargas 21415* (CUZ); Calca, Lares Valley between Huallhuayoj and Calca, 9 March 1929, *Weberbauer 7921* (F [3 sheets], GH, NY [2 sheets], US).

28. *Macrocarpaea obnubilata* J.R. Grant, sp. nov. TYPE: Peru. Huánuco: Prov. Huánuco, Trocha entre Carpath y Pati, hierba arbustiva 2.5 m, flores amarillo-verdosas, 15 January 1987, Díaz & Baldéon 2256 (holotype U; isotypes HAM, NEU).

Macrocarpaea obnubilata is known only from its type material. It is nevertheless a distinct species related to *M. ericii* (Peru: Cajamarca, Piura), *M. stenophylla* (Peru: Amazonas, Cajamarca), *M. subsessilis* (Ecuador: Loja). It occurs on the Eastern slopes of the Peruvian Andes.

Macrocarpaea obnubilata belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Eastern slopes of the central Peruvian Andes.

Etymology. From the Latin *obnubilus*, cloudy, covered with clouds.

29. *Macrocarpaea ostentans* J.R. Grant, sp. nov. TYPE: PERU. Pachitea, region of Pucallpa, western part of the "Sira Mountains" and adjacent lowland, c. 24-26 km SE to c. 26 km ESE of Puerto Inca, from the beginning of the mountain rain forest next to the "Campamento Pato Rojo" (9 27' W, 74 46' W, 1080 m), along the mountain crest to the beginning of the elfin forest after the "Campamento Peligroso" (1560 m) in a height of 1700 m, primary cloud forest, soils: red latisols with a thick humus layer, treelet of 2.5 m, only slightly woody, flowers cream-colored, 9 June 1988, Wallnöfer 129688 (holotype U; isotype WU).

Macrocarpaea voluptuosa belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Eastern slopes of the central Peruvian Andes.

Three species of *Macrocarpaea* described in this paper occur together on the Serra de Sira in Peru, *M. ostentans*, *M. tabula-fluctivagifolia*, and *M. wallnoeferi*.

M. ostentans has similarities to *M. weigendiorum*.

Etymology. From the Latin *ostentus*, showing off, or displaying, for its large corollas.

Paratypes: PERU. Huánuco: southwestern slope of the Río LlullaPichis watershed, on the ascent of Cerros del Sira, 1540 m, small 2.5-3.5 m tree, fruit a woody capsule, last year's fruit in branch axils, rare in very dense damp dark drippy cloud forest in a shallow valley just beyond Camp 4 (Peligroso), ruly a "Fern Grotto", with a tumbling waterfall, 25 July 1969, Dudley 13279 (NA); southwestern slope of the Río LlullaPichis watershed, on the ascent of Cerros del Sira, 1800 m, single- and hollow-stemmed, erect and stiff small tree to 5 m, leaves dark green, flowers pale creamy yellow, in open dryish well-drained site in elfin forest (monte chico), above Camp 4 (Peligroso) on way to Camp 5 (Tabano), 28 July 1969, Dudley 13357 (F, NA). Pasco: Prov. Oxapampa, Villa Rica-Puerto Bermudez road, 15 km from Villa Rica, second growth, 1650 m, shrub 2.5 m, flower buds green, 21 March 1984, Smith, D.N. et al. 6440 (U).

30. *Macrocarpaea pajonalis* J.R. Grant, sp. nov. TYPE: PERU. Pasco: San Gutardo, Oxapampa-Cerro de Pasco road 30-35 km W of Oxapampa, elfin forest and "pajonal", 10 40' S, 76 00' W, 2650-2800 m, shrub 3 m, flowers pale yellow, 3 February 1983, Gentry et al. 39988 (Holotype USM; isotype HAM).

Unbranched shrub to tree, 1.5-4 m, glabrous throughout. Stems terete to slightly quadrangular, solid, 3-12 mm in diameter just below inflorescence. Leaves oblanceolate to obovate, to rarely elliptical or ovate, petiolate, (3-)6-13.5 cm long; blades (2.7-)5-11 x (1.5-)2.5-5 cm, entire, slightly revolute, dark above and below, lateral veins scarcely visible either above or below, glabrous, thick, leathery-coriaceous; base aequilateral to oblique, cuneate; apex acute, obtuse to rounded. Petioles 3-21 mm long, robust with slight vagination one quarter the length of the

petiole; interpetiolar ridge 2--5 mm high. Inflorescence a few branched open thyrses, 5-32 cm long; branches 4-23 cm long, 3-5 flowered per branch. Bracts elliptical, ovate, to oblanceolate, petiolate, 15-40(-50) x 5-15(-23) mm; base aequilateral, cuneate; apex acute to obtuse; bract petioles 1-6 mm long. Flowers pedicellate, erect to nodding; pedicels 14-31 mm long; bracteoles ovate, elliptic, to lanceolate, 3-12 x 1-10 mm. Calyx campanulate, 9-13 x 7-9 mm, glabrous, faintly verrucose, ecarinate; calyx lobes rotund, ovate to elliptic, 3-4 x 4-5 mm, apex rounded. Corolla funnel-shaped, 34-38 mm long, 15-18 mm wide at the apex of the tube, yellow-green, smooth to verrucose; corolla lobes ovate, 7-9 x 6-7 mm, obtuse to rounded. Gynoecium and androecium, unknown. Capsules ellipsoidal, 18-22 x 7-9 mm, verrucose to pustulate, dark brown, nodding; style remnant 8-15 mm long. Seeds flattened, roughly 3-4 sided in outline, yet appearing as myriads of different puzzle pieces, winged, 0.4-1.0 x 0.4-0.6 mm, straw-colored, rugose-reticulate.

Macrocarpaea pajonalis has affinities with *M. harlingii*, and *M. tabula-fluctivagifolia*. It appears to be most closely related to *M. colibriphila*, with which it differs by having more flowers per branch (5—11, vs 3-5 in *M. colibriphila*), larger calyces

Based on locality and gross morphological similarities, *Macrocarpaea colibriphila* may correspond to *M. ovalis*. However, since there is no extant type of *M. ovalis*, and the description is too vague to determine what the species actually is, I have decided not to lectotypify *M. ovalis* (Grant 2003a).

Etymology. Named for the vegetation type in which it occurs, the pajonal of central Peru.

Paratypes: PERU. Huánuco: Pampayacu, small shrub, 13 January 1927, *Kanehira* 45 (GH); Carpish Hills, ca. 2 km E of tunnel on road to Tingo Maria, 9 42' S, 76 05' W, 2640 m, elfin forest along ridge below road, herb ca. 1.5 m tall, corolla yellow-green, visited by *Heliangelus amethysticollis* hummingbirds, 5 March 1985, *Stein & Todzia* 2322 (Holotype: MO; isotypes: HAM, U, USM). Prov. Leoncio Prado border to Prov. Huánuco, road from Tingo Maria to Huánuco, above pass (Carpish), 2800 m, upper margin of cloud forest, very wet, low windswept forest, *Podocarpus*, *Cybianthus*, and small-leaved *Siparunas* dominant and mixed with *Chusquea*, 29 March 2001, *Weigend et al.* 5399 (BSB, HUT, NY); Huánuco, km 451 on Lima-Tingo Maria road, Carpish, 2450 m, 4 m tree, fruits green, 2 June 1981, *Young & Sullivan* 507 (HAM, U). Pasco: Oxapampa, Cordillera Yanachaga, Cerro Pajonal "Chacos", 12 km SE of Oxapampa, shrubland on white sandstone, spongy sphagnum humus up to 2 m deep except here burned, 75 20' W, 20 35' S, 2700-2800 m, shrub 0.5 m, buds yellowish, 7 October 1982, *Foster* 9008 (MO); Border between Oxapampa and Pasco, in dwarf forest, rich with Ericaceae, bamboo and *Blechnum*, with *Sphagnum* layer below, San Cotardo, 2700 m, shrub 2 m, flowers yellow, 7 March 1986, *van der Werff* 8577 (HAM); Oxapampa, 12 km SE of town, road over shoulder of Cerro Pajonal to Villa Rica, in pajonal, i.e. in grassy semi-open vegetation on plateau of sandstone, 3000 m, flowers pale yellow, shrub to 2 m, 5 February 1997, *Weigend & Dostert* 97/78 (MSB); Oxapampa, old road from Oxapampa to Villa Rica, footpath to antenna, cloud forest, open jalca area near the top, 2200-2600 m, 5 April 2001, *Weigend et al.* 5487 (BSB).

31. *Macrocarpaea tabula-fluctivagifolia* J.R. Grant, sp. nov. TYPE: PERU.

Huánuco: Southwestern slope of the Rio LlullaPichis watershed, on the ascent of Cerros del Sira, at edge of steep embankment near Camp 3 (Laguna), 9° 26 S, 74° 45

W, ca. 1290 m, ascending shrub, sparsely branched, 10 ft. tall, DBH 1.5 inches, 15 July 1969, *Wolfe 12333* (Holotype: F; isotypes: NA, NY, USM).

Unbranched shrub, 2.5-4 m, glabrous throughout, trunk to 4-10 cm diameter, wood solid in trunk, hollow in younger branches, rings prominent, bark thin. Stems terete to slightly quadrangular, solid to hollow, 3--7 mm in diameter just below inflorescence. Leaves oblong, varying to obovate, petiolate, (7-)14-24 cm long; blades (5.5-)-12.5-21.5 x (2.5-)4--6.3 cm, entire, slightly revolute, dark above and below, lateral veins scarcely visible either above or below, glabrous, thick, leathery-coriaceous; base aequilateral to oblique, cuneate; apex acuminate to acute. Petioles 1.5--3 mm long, robust with slight vagination one eighth the length of the petiole, interpetiolar ridge 2-5 mm high. Inflorescence a few branched open diffuse thyrse, at least 35 cm long, but actually longer since the entire inflorescence doesn't fit on to a single sheet and is cut, so the actual length is unknown; branches 7-31 cm long, 3-5 flowered per branch. Bracts lanceolate, ovate, to elliptic, petiolate, 11-55 x 3-20 mm; base aequilateral, cuneate; apex acuminate to acute; bract petioles 2-6 mm long. Flowers pedicellate, erect, 15-38 mm long; bracteoles linear to lanceolate, 3-10 x 1-3 mm. Calyx campanulate, 7-8 x 6-8 mm, glabrous, faintly verrucose, ecarinate; calyx lobes rotund, ovate to elliptic, 2.5-3 x 3.5-5 mm, apex rounded to obtuse. Corolla, fruits and seeds unknown.

Macrocarpaea tabula-fluctivagifolia has affinities with *M. colibriphila*, *M. harlingii*, and *M. pajonalis*. Both *M. tabula-fluctivagifolia* and *M. harlingii* have long oblong leaves, while *M. colibriphila* and *M. pajonalis* have shorter XX leaves.

Three species occur on the Cerro del Sira in lowland Huánuco, *M. ostentans*, *M. tabula-fluctivagifolia*, and *M. wallnoeferi*. These three species have been collected by two groups, that of Dudley and Frank Wolfe in late 1960's, and then again by Bruno Wallnöfer in the late 1980's.

Etymology. From the Latin *tabula*, board, *fluctivagus*, the surf, and *folia*, leaf, for its surfboard-shaped leaves.

Paratypes: PERU. Huánuco: SW slope of the Río LlullaPichis watershed, ascent of Cerros del Sira, in open dry sites in reduced elfin forest (monte chico) just above camp 5 (Tabano) on way to the summit of the Sira (Cumbre-camp 6), 2000 m, small 12 foot tree, DBH 2-4 inches; leaves erect to ascending, clustered at apices of branches, flowers yellowish, 30 July 1969, *Dudley 13473* (NA); Pachitea, region of Pucallpa, western part of the "Sira mountains" and adjacent lowland, c. 24-26 km SE to c. 26 km ESE of Puerto Inca, from the beginning of the mountain rain forest next to the "Campamento Pato Rojo", 9 27' S, 74 46' W (1080 m), along the mountain crest to the beginning of the elfin forest after the "Campamento Peligroso" (1560 m) in a height of 1700 m, primary cloud forest, soils: red latosols with a thick humus layer, isolated and exposed patches of xeromorphic low tree and shrubland ("Colorado") characterized by typical dense moss and fern cover, differing in structure and species composition from the surrounding rain forest; treelet of 2.5 m, DBH 1 cm, flowers greenish-yellow, filaments greenish-white, pollen white, this plant at 1230 m, 13 June 1988, *Wallnöfer 18-13688* (U, WU).

32. *Macrocarpaea tahuantinsuyuana* J.R. Grant, sp. nov. TYPE: PERU. Pasco: 2-4 km E of Oxapampa, artificial pastures and second growth, 1820-1920 m, shrub 3.5 m, fruit green, 11 March 1984, *Smith, D.N. et al. 6282* (NEU, NY, U, USM).

Macrocarpaea tahuantinsuyuana belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Eastern slopes of the central Peruvian Andes.

Etymology. Named for Tahuantinsuyu, the name the Inca's called their country.

Paratypes: PERU. Junín: Chanchamayo, Mina Pichita, above San Ramon, cloud forest, 1800 m, shrub 3 m, flowers creamy white, 15 March 1986, *van der Werff et al.* 8657 (USM); Yaupi, 1600 m, tree 2 m, fruit last year's, brown, two new ones green, open place in Andean ravine, 19 July 1961, *Woytkowski* 6672A (MO, U).

33. *Macrocarpaea wallnoeferi* J.R. Grant, sp. nov. TYPE: PERU. Huánuco: Pachitea, region of Pucallpa, western part of the "Sira Mountains" and adjacent lowland, c. 24-26 km SE to c. 26 km ESE of Puerto Inca, from the beginning of the mountain rain forest next to the "Campamento Pato Rojo" (9 27' W, 74 46' W, 1080 m), along the mountain crest to the beginning of the elfin forest after the "Campamento Peligroso" (1560 m) in a height of 1700 m, treelet of 2.5 cm, flowers yellowish-green, anthers beige, this plant at c. 800 m, 20 March 1988, *Wallnöfer* 18-20388 (Holotype: WU; isotype: U).

Dudley and Wolfe collected together on the Cerros del Sira in 1969. Their two collections of this species are *Dudley* 12269A (NA) and *Wolfe* 12269a (F). The labels are identical as is the collection number, however they refer to different collectors for different herbaria, yet undoubtedly actually refer to the same collection.

Three species occur on the Cerro del Sira, *M. ostentans*, *M. tabula-fluctivagifolia*, and *M. wallnoeferi*.

Etymology. Named for Bruno Wallnöfer (1960-), curator in the Herbarium, Department of Botany, Naturhistorisches Museum Wien, Austria (W), prolific collector of Peruvian plants.

Paratypes: PERU. Huánuco: southwestern slope of the Río LlullaPichichis watershed, ascent of Cerros del Sira, in open rain forest above camp 2 (Patricio), 9 30' S, 74 47' W, 1000 m, ascending woody shrub, 3 m, DBH 2.5-4 cm, flowers and fruits green, 7 July 1969, *Dudley* 12269A (NA [2 sheets]); southwestern slope of the Río LlullaPichichis watershed, ascent of Cerros del Sira, in open rain forest above camp 2 (Patricio), 9 30' S, 74 47' W, 1000 m, ascending woody shrub, 3 m, DBH 2.5-4 cm, flowers and fruits green, 7 July 1969, *Wolfe* 12269A (F [2 sheets]); Pachitea, region of Pucallpa, western part of the "Sira Mountains" and adjacent lowland, c. 24-26 km SE to c. 26 km ESE of Puerto Inca, from the beginning of the mountain rain forest next to the "Campamento Pato Rojo" (9 27' W, 74 46' W, 1080 m), along the mountain crest to the beginning of the elfin forest after the "Campamento Peligroso" (1560 m) in a height of 1700 m, primary cloud forest, soils: red latissols with a thick humus layer, treelet of 4 m, DBH 2 cm, unripe fruits green, this plant at c. 1230 m, 12 April 1988, *Wallnöfer* 110-12488 (U, WU). Junín: Satipo, Gran Pajonal, between Paucarete and Tihuanaski, secondary forest, 74 23' W, 10 45 S, 1200 m, shrub 3 m tall, flowers purple-yellow, 29 March 1984, *Smith*, *D.N.* 6550 (NEU, U).

34. *Macrocarpaea weigendiorum* J.R. Grant, sp. nov. TYPE: PERU. Ucayali: Prov. Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria, 09 09' S, 075 45' W, 930 m, old tea plantation at summit of pass, extremely wet and all trees covered in beard of liverworts, tree to ca. 4 m tall, flowers yellow, 26 March 2001, *Weigend et al.* 5363 (Holotype: BSB; isotypes: F, GH, HUT [2 sheets], NY [2 sheets], U, US).

Macrocarpaea weigendiorum belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Eastern slopes of the central Peruvian Andes.

Etymology. Named for Maximilian (1969-) and Katja (19—) Weigend, Freie Universität Berlin, Berlin, Germany (BSB), prolific plant collectors of Peruvian plants.

Paratypes: PERU. Huánuco: Prov. Leoncio Prado, Cumbre “La divisoria”, carretera entre Tingo Maria y Pucallpa, trocha de la cumbre hacia la derecha, 170 m, hierba arbustiva 3 m, flores blanco verdosas, 18 January 1987, *Díaz & Baldéron 2271* (HAM, NEU, U, USM).

Range extensions

Macrocarpaea harlingii J.S. Pringle, Fl. Ecuador 53(159A): 101. 1995.

When *Macrocarpaea harlingii* was described, it was only known from its type material. Since then, it has been found to be more widespread in southern Ecuador, and even reaches northern Peru.

Peru. Amazonas: Prov. Condorcanqui, Cordillera del Condor, la pared del "tepui" Cerro Machinaza, cabeceras del Rio Comainas, tributario al oeste del Rio Cenepa, arriba de Puesto de Vigilancia, Alfonso Ugarte (PV 3), subiendo atras y norte de la meseta de roca arenosa, 03 52' 8" S, 78 26' 00" W, 1950-2050 m, arbusto 3-4 m, frutos inmaduros, 21 July 1994, *Beltran & R. Foster 1204* (USM); Bongará, 4 km N of Pomacochas on road to Rioja, trail down gorge to W of road, cloud forest, 05° 40' S, 77° 22' W, 2150-2200 m, shrub 2 m, fruit green, persistent flowers dried up and black, 2 June 1986, *Knapp et al. 7467* (USM); Bongara District, Bosque de Protección Alto Mayo, bosque primario, vegetación de 2 m promedio, 05 40' 20" S, 077 37' 57" W, 2550 m, arbusto 3 m flores amarillas, 19 March 2002, *Vásquez 27655* (NEU). Cajamarca: San Ignacio, Huarango, Localidad Romerillo, Cordillera entre Romerillo y Nuevo Mundo, vegetación primaria, con predominancia de árboles enanos, 05° 14' 00" S, 78° 46' 00" W, 2300 m, sufrútice 1 m, frutos amarillos, 27 July 1997, *Campos et al. 4284* (U [2 sheets]).

Macrocarpaea noctiluca J.R. Grant & Struwe

Peru. Amazonas: Prov. Condorcanqui, Cordillera del Condor, la pared del "tepui" Cerro Machinaza, cabeceras del Rio Comainas, tributario al oeste del Rio Cenepa, arriba de Puesto de Vigilancia Alfonso Ugarte (PV 3), subiendo atras y norte del Campamento, 03 52' 8" S, 78 26' 00" W, 1950-2050 m, arbustales y roca abierta, sobre paredes y base de la meseta de roca arenosa, arbolito, 304 m, frutos verdes, 21 July 1994, *Beltran & R. Foster 1197* (Holotype: USM).

Macrocarpaea revoluta

PERU. Pasco: Oxapampa, between La Suiza and San Gotardo, 28-34 km W of Oxapampa, 75 37' W, 10 37' S, high montane forest, low canopy less than 15 m, 2350-2700 m, shrub 3 m, open crown, leaves and flowers clustered at branch tops, flowers pale yellow, 21 November 1982, *Smith, D.N. 2748* (Holotype MO: Isotypes HAM, USM). Oxapampa, pass before La Suiza, 20 km W of Oxapampa, 75 33' W, 10 35' S, 2100-2150 m, high mountain rainforest, tending towards pajonal vegetation, single erect stem, 4 m, buds green, 27 December 1983, *Smith, D.N. 5402* (USM).

Macrocarpaea viscosa

PERU. Pasco: Oxapampa, Distr. Huancabamba, Misericordia trail, Lanturachi - Sta. Barbara, pajonal ridges, cloud forest and low puna, 75 40' W, 10 20' S, 2300-3300 m, treelet 3-5 m, flowers pale green, 3 July 1985, *Foster, R. et al. 10511* (USM).

COMPARE TO MAGUIREI AND VISCOSA

Macrocarpaea voluptuosa belongs to *Macrocarpaea* sect. *Magnolifoliae*, and occurs in the Eastern slopes of the central Peruvian Andes.

Etymology. From the Latin *voluptuosus*, for the velvety-luxurious hairs on the calyces.

Typification of all names published in (or transferred to) *Macrocarpaea* as of year 2001

This is a list of all names that have been originally described in *Macrocarpaea*, or that have been transferred to the genus. The names are listed alphabetically by basionym. For those species that are no longer accepted in the genus, or recognized in synonymy under other species of *Macrocarpaea*, the name as currently accepted is appended.

All herbarium material of *Macrocarpaea* at Berlin (B) was destroyed during the Second World War, except for the type of *Lisianthus macrophyllus* that survived in the Willdenow Herbarium (B-Willd). Both Gilg and Gilg-Benedict likely had type (holotypic) material at Berlin of each of the many new species they described. Luckily, there is isotypic material in many other herbaria from which to select lectotypes (e.g. BM, BR, C, E, G, GH, GOET, K, LD, M, MANCH, MICH, MO, NY, OXF, P, PH, QPLS, US, and W). Twelve lectotypes are selected here, these being for *Lisianthus obtusifolius* var. *constrictus*, *Macrocarpaea bangiana* Gilg, *M. bogotana* Gilg, *M. calophylla* Gilg, *M. chlorantha* Gilg, *M. cochabambensis* Gilg-Ben., *M. glaziovii* Gilg, *M. hartii* Krug & Urb., *M. micrantha* Gilg, *M. pachyphylla* Gilg, *M. polyantha* Gilg, and *M. rubra* Malme. A neotype is selected for *M. duquei* Gilg-Ben., and the name *Macrocarpaea weberbaueri* Gilg is excluded from use.

Calolisianthus tepuiensis Gleason, Brittonia 3: 188-189. 1939. *Macrocarpaea tepuiensis* (Gleason) Steyererm., Fieldiana, Bot. 28(3): 498. 1953. *Rogersonanthus tepuiensis* (Britton) Maguire & Boom, Mem. New York Bot. Gard. 51: 4. 1989. TYPE: Venezuela. Amazonas: Tate 1361 (Holotype: NY) = ***Rogersonanthus arboreus*** (Britton) Maguire & Boom.

Chelonanthus arboreus Britton, Bull. Dept. Agr. Trin. & Tob. 19: 230. 1922. *Macrocarpaea arborea* (Britton) Ewan, Contr. U. S. Natl. Herb. 29: 221. 1948. TYPE: Trinidad. Britton 1295 (Holotype: NY) = ***Rogersonanthus arboreus*** (Britton) Maguire & Boom, Mem. New York Bot. Gard. 51: 8. 1989.

Lisianthus browallioides Ewan, Proc. Biol. Soc. Washington 64: 132. 1951. TYPE: Panama. Bocas del Toro: Allen 4932 (Holotype: MO; isotype: G) = ***Macrocarpaea browallioides*** (Ewan) A. Robyns & S. Nilsson, Bull. Jard. Bot. Natl. Belg. 40: 14. 1970.

Lisianthus corymbosus Ruiz & Pav., Fl. Peruv. Chil. 2: 14. 1799, *nom illeg.*, *Macrocarpaea corymbosa* (Ruiz & Pav.) Ewan, Contr. U. S. Natl. Herb. 29: 242. 1948. TYPE: Peru. Huánuco: Ruiz & Pavon s.n. (Lectotype: MA-Ruiz & Pavon [2 sheets]; isolectotypes: BM [5 sheets], F [2 sheets], G [2 sheets]), selected by Grant (2002) = ***Macrocarpaea pachystyla*** Gilg.

Lisianthus densiflorus Benth., Pl. Hartw. 227. 1846. TYPE: Colombia. Cauca: *Hartweg 1241* (Holotype: K) = ***Macrocarpaea densiflora*** (Benth.) Ewan, Contr. U. S. Natl. Herb. 29: 232. 1948.

Lisianthus glaber L.f., Suppl.: 134. 1781. ***Macrocarpaea glabra*** (L.f.) Gilg in Engl. & Prantl, Nat. Pflanzenfam. 4(2): 94. 1895. TYPE: Colombia. Mutis specimen 213.2 (Lectotype: LINN), designated by Weaver (1972a: 304). There are Mutis specimens of *Lisianthus glaber* at G, MA-Mutis, S, and US that could ostensibly be designated as isolectotypes. However, the lectotype at LINN does not have a collection number, whereas all the other collections do (Mutis 90, Mutis 333, Mutis 383, and Mutis 4562). Also, while Linnaeus filius surely saw the material at LINN, it is unlikely he examined the material in the other herbaria.

Lisianthus loranthoides Griseb., Gen Sp. Gent. 179. 1839. TYPE: Peru. Amazonas: *Mathews 1315* (Holotype: K; isotypes: E, OXF) = ***Macrocarpaea loranthoides*** (Griseb.) Maas Cat. Fl. Pl. Gymn. Peru (Mon. Syst. Bot. Missouri Bot. Gard. 45): 1256. 1993.

Lisianthus macrophyllus Kunth, Nov. Gen et Sp. 3: 183. (9 July) 1819. ***Macrocarpaea macrophylla*** (Kunth) Gilg in Engl. & Prantl, Nat. Pflanzenfam. 4(2): 94. 1895. TYPE Colombia. *crescit locis subfrigidus in declivitate Parami de Almaguer, inter Pansitarra et flumen, Humboldt & Bonpland s.n.* (Lectotype: P [P-Herbarium Humboldt, Bonpland & Kunth, microfiche, IDC 6209. 72: III. 6], designated by Weaver [1972a: 305]; isolectotype *Humboldt 3561* [B-Willd, microfiche 7440, No. 246, 3561], determined here).

Lisianthus obtusifolius Griseb., Gen et Sp. Gent.: 175. 1839. *Helia obtusifolia* (Griseb.) Kuntze, Rev. Gen. 428. 1891. TYPE: Brazil. Rio de Janeiro: *Sellow s.n.* (Lectotype: K; isolectotype: P), designated by Weaver (1972: 305) = ***Macrocarpaea obtusifolia*** (Griseb.) Gilg in Engl. & Prantl, Nat. Pflanzenfam. 4(2): 94. 1895.

Lisianthus obtusifolius var. *constrictus* Gris., Gen. et Sp. Gent.: 175. 1839. ***Macrocarpaea glaziovii*** Gilg subsp. *constricta* (Griseb.) Ewan, Proc. Biolog. Soc. Washington 65: 189. 1952. TYPE: Brazil. Minas Gerais, 1000', *Langsdorff s.n.* (lectotype K (herb. Hooker); isolectotype BR, designated here).

Lisianthus ovalis Ruiz & Pav., Fl. Peruv. Chil. 2: 13. 1799. ***Macrocarpaea ovalis*** (Ruiz & Pav.) Ewan, Contr. U. S. Natl. Herb. 29: 234. 1948. TYPE: Peru. Huánuco: *Ruiz & Pavon s.n.*; original material no longer extant, determined by Grant (2002). Name not neotypified since the protologue is too vague to accurately associate it with any currently known species.

Lisianthus quelchii N.E. Br., Trans. Linn. Soc. II, Bot. 6: 50, pl. 8, figs 6-9. 1901. *Symbolanthus quelchii* (N.E. Br.) Gleason, Bull. Torrey Bot. Club 56: 402. 1929. ***Macrocarpaea quelchii*** (N.E. Br.) Ewan, Contr. U. S. Natl. Herb. 29: 233. 1948. *Irlbachia quelchii* (N.E. Br.) Maas, Proc. Kon. Ned. Akad. Wetensch. Ser. C. 88(4): 410. 1985. TYPE: Venezuela. Bolivar: *Quelch 106 & 649* (syntypes K) = *Rogersonanthus quelchii* (N.E. Br.) Maguire & Boom, Mem. New York Bot. Gard. 51: 4. 1989.

Lisianthus revolutus Ruiz & Pav., Fl. Peruv. Chil. 2: 14. 1799. *Helia revoluta* (Ruiz & Pav.) Kuntze, Rev. Gen. 428. 1891. TYPE: Peru. Huánuco: *Ruiz & Pavon s.n.* (Lectotype: MA-Ruiz & Pavon; isolectotypes: BM [2 sheets], MA-Ruiz & Pavon [3 sheets], F, G [3 sheets]), selected by Grant (2002) = ***Macrocarpaea revoluta*** (Ruiz & Pav.), Gilg in Engl. & Prantl, Nat. Pflanzenfam. 4(2): 94. 1895.

Lisianthus thamnoides Griseb., Fl. Brit. W. Ind.: 424. 1864. *Helia thamnoides* (Griseb.) Kuntze, Rev. Gen. 428. 1891. TYPE: Jamaica. *Macfayden s.n.* (Holotype: K) = ***Macrocarpaea thamnoides*** (Griseb.) Gilg in Engl. & Prantl, Nat. Pflanzenfam. 4(2): 94. 1895.

Lisianthus viscosus Ruiz & Pav., Fl. Peruv. Chil. 2: 14. 1799. *Helia viscosa* (Ruiz & Pav.) Kuntze, Rev. Gen. 428. 1891. TYPE: Peru. Huánuco: *Ruiz & Pavon s.n.* (Lectotype: MA-Ruiz & Pavon; isolectotype: MA-Ruiz & Pavon, selected by Grant (2002) = ***Macrocarpaea viscosa*** (Ruiz & Pav.) Gilg, Bot. Jahrb. Syst. 22: 337. 1896.

Macrocarpaea acuminata Weaver, J. Arnold Arbor. 53(4): 555. 1972. TYPE: Costa Rica. Cartago: *Jiménez M. 2023* (Holotype: F; isotypes: BM, GH, NY).

Macrocarpaea affinis Ewan, Proc. Biol. Soc. Wash. 63: 163. 1950. TYPE: Colombia. Santander: *Uribe 1991* (Holotype: US).

Macrocarpaea angelliae J.R. Grant & Struwe, Harvard Pap. Bot. 5(2): 490. 2001. TYPE: Ecuador. Zamora-Chinchi: *Romoleroux 804* (Holotype: NY, isotypes: AAU, QCA).

Macrocarpaea angustifolia J.S. Pringle, Novon 12(1): 80. 2002. TYPE: Peru. Pasco: *Foster 7747* (Holotype: MO; isotype: USM).

Macrocarpaea arborescens Gilg, Bot. Jahrb. Syst. Beibl. 111: 50. 1913. TYPE: Colombia. Cauca: *Lehmann 5450* (type B? [destroyed]; Lectotype: GH; isolectotypes: F, K, US), selected by Grant (2002).

Macrocarpaea autanae Weaver, Mem. New York Bot. Gard. 32: 336. 1981. TYPE: Venezuela. Amazonas: *Steyermark 105191* (Holotype: VEN; isotype: NY).

Macrocarpaea ayangannae J.R. Grant, Struwe & Boggan, Harvard Pap. Bot. 5(2): 493. 2001. TYPE: Guyana. *Pipoly 11103* (Holotype: US [2 sheets], isotype: NY)

Macrocarpaea bangiana Gilg, Bot. Jahrb. Syst. 22: 335. 1896. TYPE: Bolivia. LA PAZ: *Bang 520* (type B? [destroyed]; Lectotype: NY [2 sheets]; isolectotypes: BM, E, G [3 sheets], GH [2 sheets], K, M, MANCH, MICH, MO, US [2 sheets], W, selected here).

Macrocarpaea bogotana Gilg, Bot. Jahrb. Syst. 22: 337. 1896. TYPE: Colombia. Cundinamarca: *Holton 470* (type B? [destroyed]; Lectotype: G; isolectotypes: G, GH, K, NY, selected here) = ***Macrocarpaea glabra*** (L.f.) Gilg.

Macrocarpaea bracteata Ewan, Contr. U. S. Natl. Herb. 29: 236. 1948. TYPE: Venezuela. Lara: *Steyermark 55224* (Holotype: F; isotype: US).

Macrocarpaea calophylla Gilg, Bot. Jahrb. Syst. 22: 339. 1896. TYPE: Colombia. Magdalena: *Funcke 530* (type B? [destroyed]; Lectotype: G; isoelectotypes: BM, K, LD, OXF, W, selected here).

Macrocarpaea cerronis Ewan, Contr. U. S. Natl. Herb. 29: 223. 1948. TYPE: Venezuela. Bolivar: *Steyermark 60058* (Holotype: F; isotype: US) = ***Rogersonanthus arboreus*** (Britton) Maguire & Boom.

Macrocarpaea chlorantha Gilg, Feddes Repert. Sp. Nov. Regni Veg. 2: 53. 1906. TYPE: Peru. Amazonas: *Weberbauer 4411* (type B? [destroyed]; Lectotype: G, selected here) = ***Macrocarpaea loranthoides*** (Griseb.) Maas.

Macrocarpaea cochabambensis Gilg-Ben., Notizbl. Bot. Gart. Berlin 13: 381. 1936. TYPE: Bolivia. Cochabamba: *Steinbach 8992* (type B? [destroyed]; Lectotype: NY; isoelectotypes: BM, E, G, K, MO, S, U, Z, selected here).

Macrocarpaea domingensis Urb. & Ekman, Ark. Bot. 23A(11): 30. 1931. TYPE: Dominican Republic. Santo Domingo: *Ekman H11504* (Holotype: S; isotypes: K, US).

Macrocarpaea duquei Gilg-Ben., Notizbl. Bot. Gart. Berlin 13: 382. 1936. TYPE: Colombia. Cauca: *Duque-Jaramillo 2* (Holotype: B? [destroyed]; neotype: Colombia. Cauca: *Cuatrecasas 21824* (US); isoneotypes COL, F, selected here).

Macrocarpaea glaziovii Gilg, Bot. Jahrb. Syst. 22: 335. 1896. TYPE: Brazil. Rio de Janeiro: *Glaziou 4939* (type B? [destroyed]; Lectotype: K; isoelectotypes: C, P, selected here).

Macrocarpaea guttifera Ewan, Contr. U. S. Natl. Herb. 29: 237. 1948. TYPE: Peru. Loreto: *Killip & Smith 27045* (Holotype: US) = ***Ravenia biramosa*** Ducke, Arch. Inst. Biol. Veg. 2: 48. 1935 (Rutaceae).

Macrocarpaea harlingii J.S. Pringle, Fl. Ecuador 53(159A): 101. 1995. TYPE: Ecuador. Zamora-Chinchipe: *Harling 23531* (Holotype: GB; isotype: QCA).

Macrocarpaea hartii Krug & Urb., Notizbl. Bot. Gart. Berlin 1: 80. 1895. TYPE: Jamaica. *Hart 1417* (Lectotype: S; isoelectotype: US, selected here) = ***Macrocarpaea thamnoides*** (Griseb.) Gilg. Krug & Urban cite two specimens in their protologue, *Hart 1417* (S, US) and *Harris 5352* (BM, US). The Hart material is selected as Lectotype: since the species was named in his honor, and the material is more ample.

Macrocarpaea luteynii J.R. Grant & Struwe, Harvard Pap. Bot. 5(2): 495. 2001. TYPE: Colombia. Cauca: *Luteyn 7466* (Holotype: NY; isotypes: COL, F, HAM, MO, U, US).

Macrocarpaea marahuacae Struwe & V.A. Albert, Harvard Pap. Bot. 3(2): 182. 1998. TYPE: Venezuela. Amazonas: *Liesner 24651* (Holotype: MO).

Macrocarpaea micrantha Gilg, Bot. Jahrb. Syst. 22: 338. 1896. TYPE: Peru. San Martín: *Spruce 4618* (type B? [destroyed]; Lectotype: NY; isolectotypes: BM, BR, C, E, G [3 sheets], GH, GOET, K [2 sheets], LD, OXF [2 sheets], P, W [2 sheets] , selected here).

Macrocarpaea neblinae Maguire & Steyer., Mem. New York Bot. Gard. 32: 332. 1981. TYPE: Venezuela. Amazonas: *Maguire 37103* (Holotype: NY; isotype: US).

Macrocarpaea pachyphylla Gilg, Bot. Jahrb. Syst. 22: 338. 1896. TYPE: Colombia. Nariño: *Jameson 467* (type B? [destroyed]; Lectotype: G; isolectotypes: BM, G [2 sheets], K, OXF, US, selected here).

Macrocarpaea pachystyla Gilg, Bot. Jahrb. Syst. 22: 336. 1896. TYPE: Peru. Chicoplaya, *Tafalla s.n.* (type B? [destroyed]; Lectotype: MA-Ruiz & Pavon [2 sheets]; isolectotypes: G), selected by Grant (2002).

Macrocarpaea pauciflora Alain, Mem. Soc. Cubana Hist. Nat. 22: 115. 1955. TYPE: Cuba, Oriente: *Alain 3855* (Holotype: LS [not seen]; isotype: NY) = ***Macrocarpaea pinetorum*** Alain (see Thiv & Grant 2002).

Macrocarpaea pinetorum Alain Mem. Soc. Cubana Hist. Nat. 22: 114. 1955. TYPE: Cuba, Oriente: *Clemente 4401* (Holotype: LS [not seen]; isotypes: GH, US).

Macrocarpaea piresii Maguire, Mem. New York Bot. Gard. 32: 338. 1981. TYPE: Brazil. Amazonas: *Maguire 60453* (Holotype: NY; isotypes: MG, NY, US, VEN).

Macrocarpaea polyantha Gilg, Bot. Jahrb. Syst. 22: 336. 1896. TYPE: Colombia. Cundinamarca: *Goudot 1* (type B? [destroyed]; Lectotype: G; isolectotypes: G, GOET, K, P, selected here) = ***Macrocarpaea glabra*** (L.f.) Gilg.

Macrocarpaea rubra Malme, Ark. Bot. 22A(2): 3. 1928. TYPE: Brazil. Paraná: *Dusén s.n.* (Lectotype: S; isolectotypes: GH, LD, selected here).

Macrocarpaea rugosa Steyer., Bol. Soc. Venez. Cienc. 25: 83. 1963. TYPE: Venezuela. Bolívar: *Steyermark & Wurdack 861* (Holotype: VEN; isotypes: F, NY).

Macrocarpaea salicifolia Ewan, Contr. U. S. Natl. Herb. 29: 224. 1948. TYPE: Venezuela. Bolívar: *Steyermark 60279* (Holotype: F) = ***Rogersonanthus arboreus*** (Britton) Maguire & Boom.

Macrocarpaea sodiroana Gilg, Bot. Jahrb. Syst. 25: 724. 1898. TYPE: Ecuador. Pichincha: *Sodiro 101/1* (type B? [destroyed]; Lectotype: QPLS; isolectotypes: QPLS [2 sheets]), selected by Grant (2002).

Macrocarpaea stenophylla Gilg, Bot. Jahrb. Syst. 22: 337. 1896. TYPE: Peru. Amazonas: *Stübel 24* (type B? [destroyed]; neotype *Williams 7582* (F)), selected by Grant & Struwe (2000).

Macrocarpaea subcaudata Ewan Contr. U. S. Natl. Herb. 29: 224. 1948. TYPE: Costa Rica. San José: *Wercklé 16492* (Holotype: US; isotype: NY).

Macrocarpaea valerii Standl. Publ. Field Mus. Nat. Hist. Chicago Bot. Ser. 18: 928. 1938. TYPE: Costa Rica. San José: *Valerio 692* (Holotype: F).

Macrocarpaea weberbaueri Gilg, Feddes Repert. Sp. Nov. Regni Veg. 2: 54. 1906. TYPE: Peru, *Weberbauer 4655* and *Weberbauer 5006* [both destroyed?]. All original material of *M. weberbaueri* is no longer extant, and therefore this name is excluded from use. No isotypic material has been located in other herbaria. The two Weberbauer collections are from two strikingly different regions of Peru; collection 4655 is from “in montibus septentrionem versus a Moyobamba, Dept Loreto”, and collection 5006 is from “supra haciendam Idma, Cuzco, Prov. Convención”. Based on their localities in Amazonas and Cuzco alone, these undoubtedly represent two different species. Since *Macrocarpaea weberbaueri* is based on two discordant and missing collections, the name is not neotypified, and therefore simply excluded from use as in the case of *Lisianthus ovalis* (see Grant 2003). Ewan (1948: 240) placed *M. weberbaueri* into synonymy under *M. micrantha*, (and was also followed by Macbride 1959: 287), so the name has not been used in any recent treatments.

Rusbyanthus cinchonifolius Gilg, in Engl. & Prantl, Nat. Pflanzenfam. 4(2): 95. 1895. TYPE: Bolivia. La Paz: *Rusby 1173* (type B? [destroyed]; Lectotype: NY; isolectotypes: BM, E, G, P, PH, S, US, WIS, selected by Weaver 1974: 300) = ***Macrocarpaea cinchonifolia*** (Gilg) Weaver, J. Arnold Arbor. 55(2): 300. 1974.

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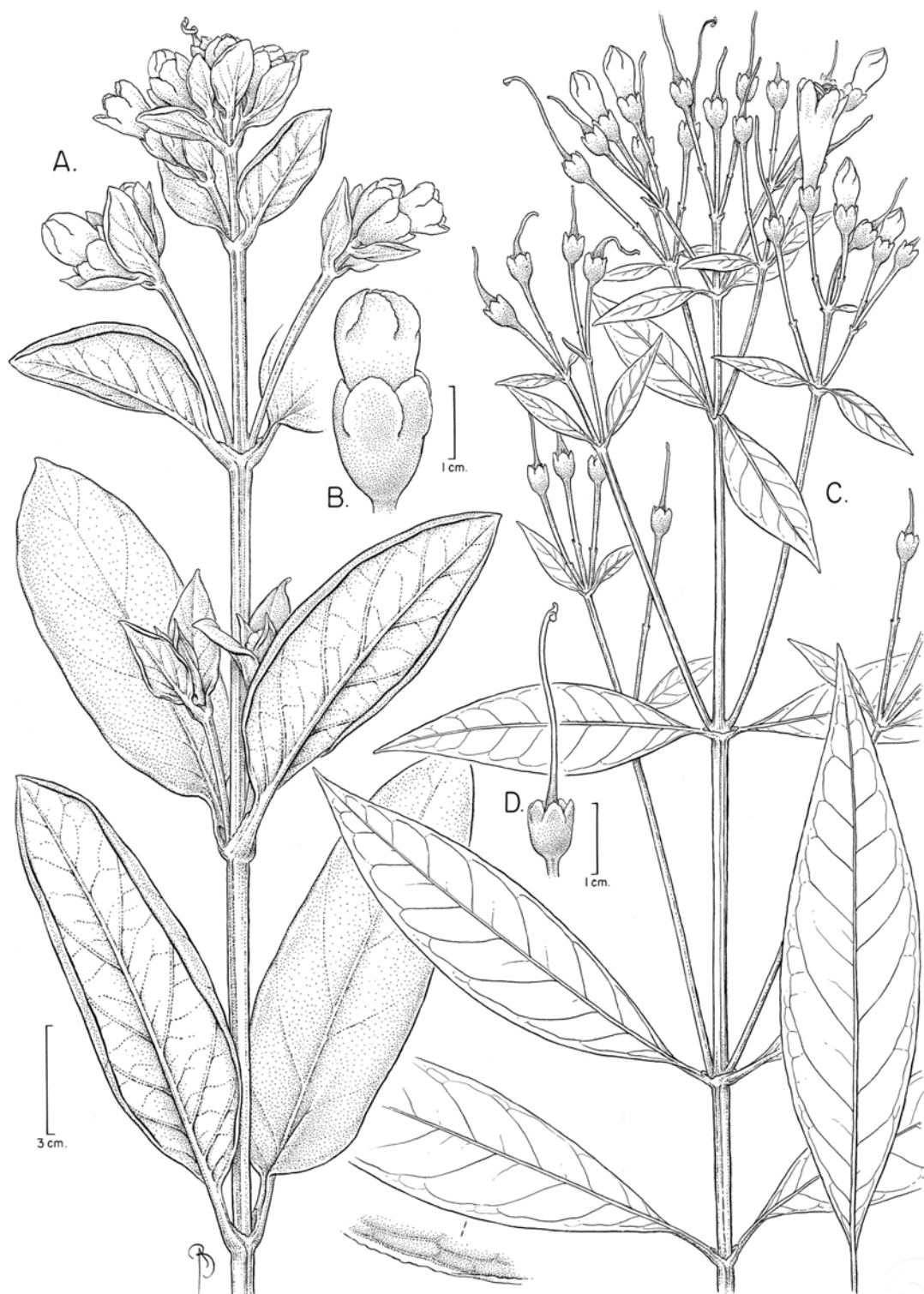


Figure 1. A-B *Macrocarpaea biremis*. A, habit of flowering stem; B, bud. C-D *M. kayakifolia*. C, habit of flowering stem; D, young fruit. A-B drawn from Killip 8000 (GH); C-D drawn from Stein 3864 (HAM).

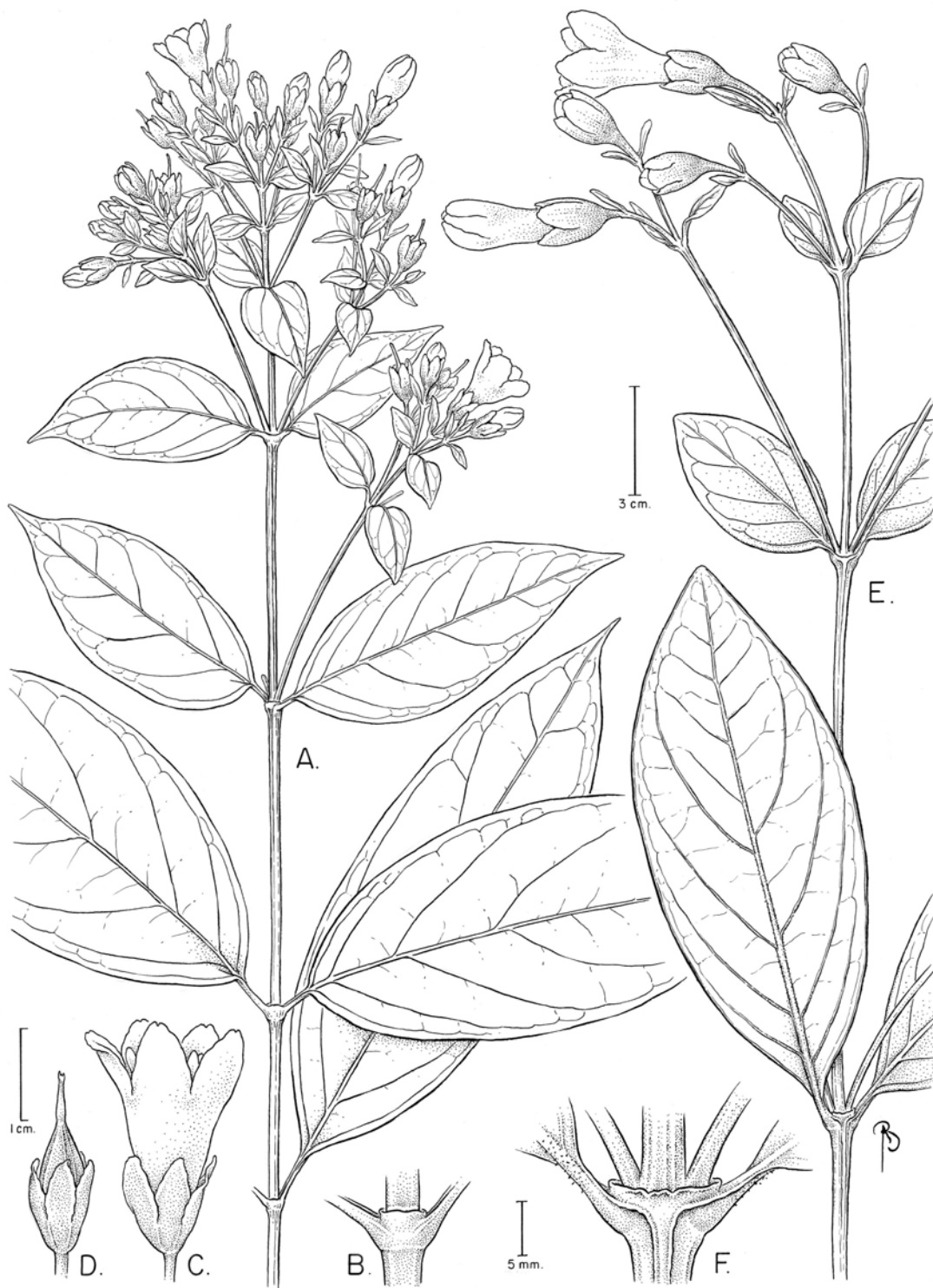


Figure 2. A-D *Macrocarpaea gondoloides*. A, habit of flowering stem; B, interpetiolar ridge; C, flower; D, fruit. E-F *M. ypsilochaule*. E, habit of flowering stem; F, interpetiolar ridge. A-C drawn from Forero *et al.* 3158 (MO, COL), D drawn from Forero 3226 (COL), E-F drawn from Miguel 57 (F).



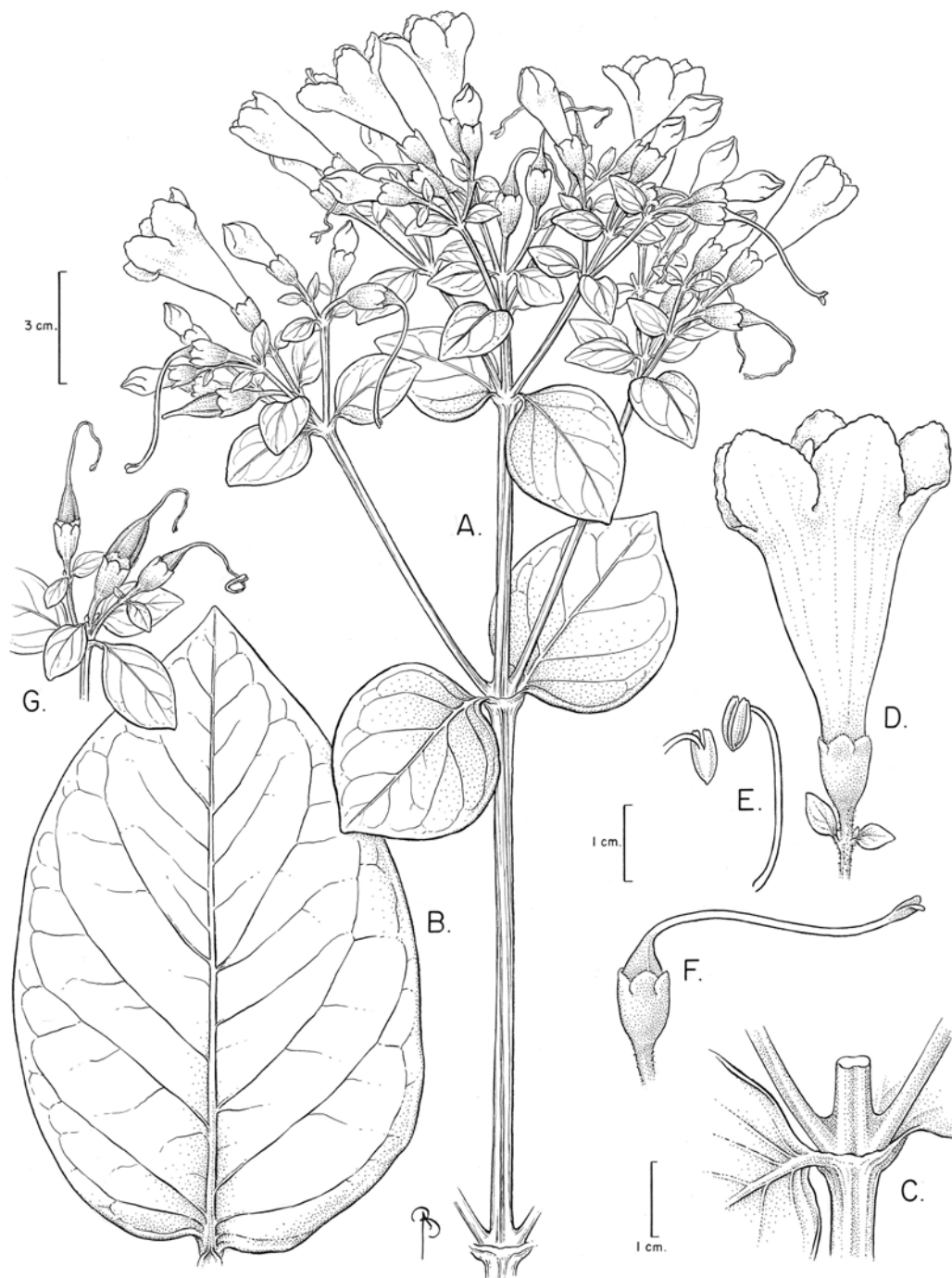
Figure 3. A-C *Macrocarpaea gaudialis*. A, habit of flowering stem; B, calyx; C, fruits. D-E *M. jocularis*. D, habit of flowering stem; E, bud. F-H *M. hilarula*. F, habit of flowering stem; G, interpetiolar ridge and leaves; H, bud. I-K *M. maryae*. I, habit of flowering stem; J, interpetiolar ridge and leaf; K, bud. A-C drawn from Weaver 2650 (AAU, GH); D-E drawn from Little 8708 (COL); F-H drawn from Fosberg 19285 (US); I-K drawn from Gentry & Fallen 17364 (COL).



Figure 4. A-D *Macroparpaea illecebrosa*. A leaf; B, flowers; C, habit of flowering stem; D, bud. E-G *M. gulosa*. E mature leaf and detail of interpetiolar ridge; F, habit of flowering stem; G, bud. H-J *M. gravabilis*. H, leaf; I, habit of flowering stem; J, bud. K-M *M. umerulus*. K, leaf; L, habit of flowering stem; M, nodding bud. A-B drawn from Lopez 447 (NY); C-D drawn from Schultes 3223 (GH); E-G drawn from Alonso et al. 11794 (COL); H-J drawn from von Sneider 5434 (S).



Figure 5. *Macrocarpaea lacrossiformis*. A, habit of flowering stem; B, leaves; C, mature leaf and detail of interpetiolar ridge; D, flower; E, dissected flower; F, fruits; G, lacrosse stick. A-B drawn from Orozco 1060 (COL), D-F drawn from Lozano C. 393 (COL).



A, C-F. Asplund 18200 (S 1447)

Figure 6. *Macrocarpaea gattaca*. A, habit of flowering stem; B, leaf; C, detail of interpetiolar ridge; D, flower; E, anthers; F, immature fruit; G, maturing fruits. A, C-F drawn from Asplund 18200 (S); B drawn from Jaramillo 22 (QCA); G drawn from Freire 456 (AAU).



Figure 7. A-B *Macroparpaea pringleana*. A, bud, habit of flowering stem; B, fruit. C-D *M. harlingii*. C, habit of flowering stem; D, flower. E-K *M. elix*. E, habit of flowering stem; F, leaf; G, flower. H, habit of flowering stem; I, flower; J, interpetiolar ridge and leaves; K, fruit. A drawn from Luteyn 5830 (NY); B drawn from Clark et al. 5480 (QCNE); C-D drawn from Knapp et al. 7467; E drawn from Harling & Andersson 23442; F-G drawn from Harling & Andersson 23031; H-I drawn from Boeke & Loyola 988; J-K drawn from Camp 4325.



Figure 8. A-B *Macrocarpaea bubops*. A, leaf; B, branch of flowering stem and interpetiolar ridge. C-D *M. ostentans*. C, leaf; D, habit of flowering stem. E-I *M. ericii*. E, mature leaf; F, smaller mature leaf; G, habit of flowering stem; H, detail of fruiting flower, notice two pronounced bracteoles; I, habit of fruiting stem. J-K *M. dillonii*. J, leaf; K, habit of fruiting stem. A-B drawn from Beltran & Foster 1197 (USM); C-D drawn from Wallnöfer 12-9688 (U); E drawn from Campos et al. 4296 (MO); F-H drawn from Weigend 98/500 (M); I drawn from Campos et al. 5564 (U).



Figure 9. A-B *Macrocarpaea kuepferiana*. A, habit of flowering stem; B, bud. C-E *M. fortisiana*. C, leaves and interpetiolar ridge; D, habit of flowering stem; E, bud. A-B drawn from Vargas 18928 (CUZ); C drawn from Metcalf 30629 (GH); D-E drawn from McCarroll 128 (NY).



Figure 10. A-C *Macrocarpaea jalca*. A, habit of flowering stem; B, flower; C, fruits. D-G *M. kuelap*. D, habit of flowering stem; E, flower; F, leaf; G, fruits. H-J *M. normae*. H, habit of flowering stem; I, bud; J, leaf and interpetiolar ridge. K-N *M. wallnöferi*. K, habit of flowering stem; L, leaf and interpetiolar ridge; M, flower; N, fruits. A drawn from Smith & Diaz 1558 (WIS); B drawn from Diaz et al. 3942 (MO); C drawn from Diaz & Osorio 2584 (USM); D, F drawn from Grant & Rodriguez 3942 (US); E, G drawn from Wurdack 524 (NY); H-I drawn from Vargas 4196 (US); J drawn from Weberbauer 7921 (F); K, M drawn from Wallnöfer 20388 (U); L, N drawn from Wallnöfer 12488 (U).

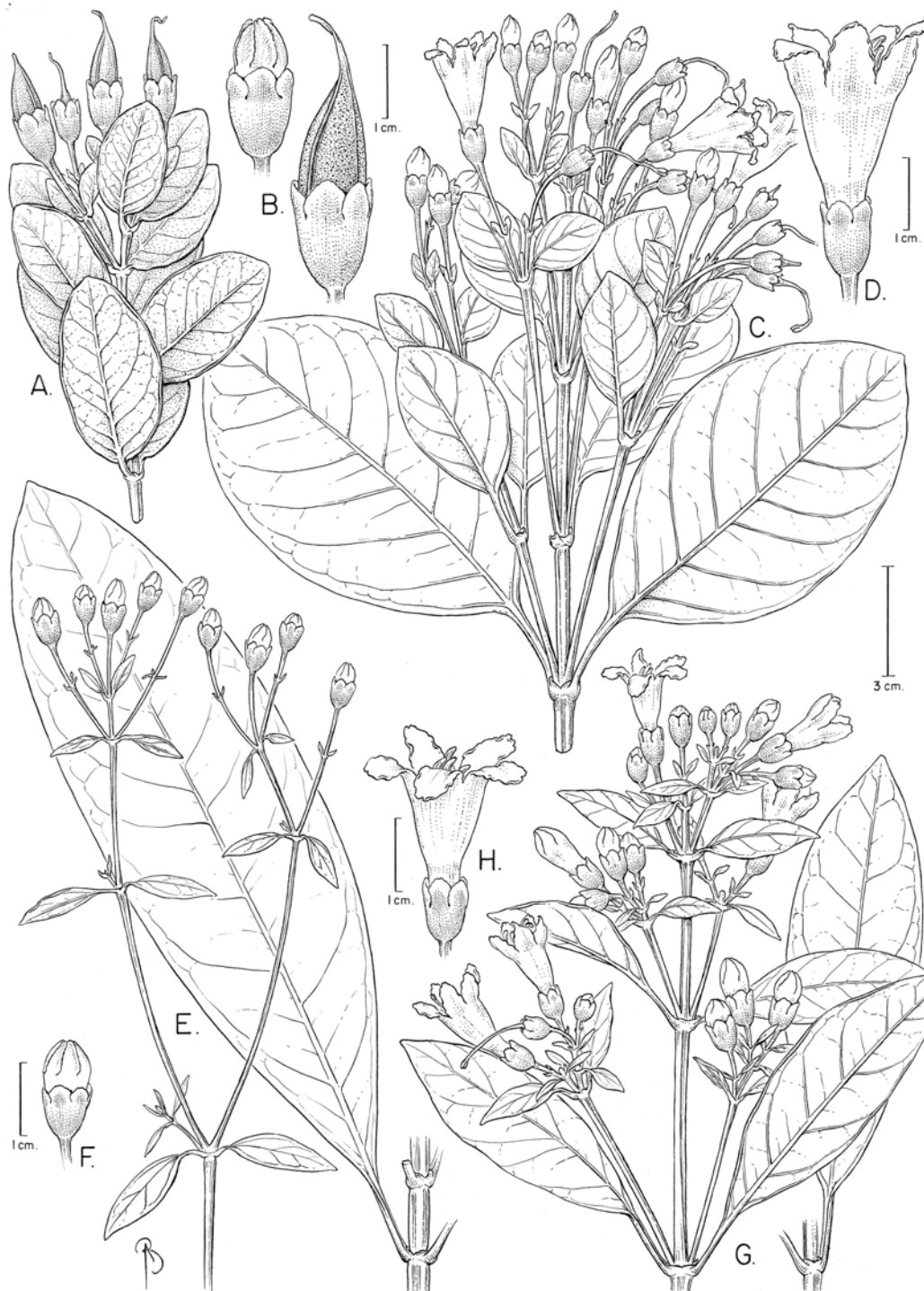


Figure 11. A-B *Macrocarpaea luya*. A, habit of flowering stem; B, bud and fruit. C-D *M. innarrabilis*. C, habit of flowering stem; D, flower. E-F *M. tabula-fluctivagifolia*. E, habit of flowering stem, leaf and interpetiolar ridge; F, bud. G-H *M. revoluta*. G, habit of flowering stem, leaf and interpetiolar ridge; H, flower. A-B drawn from Diaz & Campos 3786 (USM); C-D drawn from Matthews 1314 (K); E-F drawn from Wolfe 12333 (F); G-H drawn from Smith 2748 (HAM).



Figure 12. A-B *Macrocarpaea canoëifolia*. A, habit of flowering stem; B, flower. C-F *M. tahuantinsuyuana*. C, habit of flowering stem; D, flower; E, immature fruit; F, mature fruits. G-H *M. obnubilata*. G, habit of flowering stem; H, bud. I-J *M. viscosa*. I, leaf and habit of flowering stem; J, calyx. A drawn from Woytkowski 35417 (UC); B drawn from Gentry *et al.* 40187 (HAM); C-E drawn from van der Werff 8657 (USM); F drawn from Woytkowski 6672A (MO); G-H drawn from Díaz & Baldéon 2256 (MO); I-J drawn from Foster *et al.* 10511 (USM).



Figure 13. A-F *Macrocarpaea weigendiorum*. A, habit of flowering stem; B, flower; C, dissected flower; D, gynoecium; E, fruit; F, leaf. G-K *M. pajonalis*. G, habit of flowering stem; H, flower; I, fruits; J, habit of flowering stem; K, flower. L-O *M. fosteri*. L, leaf and interpetiolar ridge; M, habit of flowering stem; N, bud; O, fruits. A-F drawn from *Weigend 5363*; G-I drawn from *Weigend 5399*; J-K drawn from *Weigend 5487*; L drawn from *Weigend 5777*; M-N drawn from *Foster 9114*; O drawn from *Foster 8610*.

APPENDIX I

Pollen morphological data and vouchers for *Macrocarpaea* (modified from Nilsson 2002)

Species	Country	Collector, Coll #	P	E	Size range (um)	P/Ee	P/E range	Exine pattern	Slide No.	Pollen type	Citation
affinis	Colombia	Uribe 2432 (F)	29	33	26-32 x 31-35	0.88	0.8-0.9	ret.-co.ret.	700	GLABRA	Nilsson 2002
arborescens	Ecuador	André 4549 (NY)	30	32	26-33 x 30-37	0.94	0.8-1.0	ret.-co.ret.	3183	GLABRA	Nilsson 2002
arborescens	Colombia	Lehmann 5450 (F)	35	36	29-39 x 29-39	0.97	0.8-1.2	ret.-co.ret.	2718	GLABRA	Nilsson 2002
ayangannae	Guyana	Pipoly 11103	—	—	—	—	—	—	—	GLABRA	Grant & Struwe 2001
bangiana	Bolivia	Bang 520 (US)	28	28	25-31 x 26-32	1	0.9-1.1	ret.-co.ret.	690	GLABRA	Nilsson 2002
bracteata	Venezuela	Dorr et al. 4990 (NY)	38	37	33-44 x 29-42	1.03	0.8-1.2	ret.-co.ret.	24185	GLABRA	Nilsson 2002
browallioides	Panamá	Allen 4932 (MO)	43	49	41-45 x 46-53	0.88	0.8-0.9	ret.-co.ret.	7329	GLABRA	Nilsson 2002
cochabambensis	Bolivia	Steinbach 8992 (F)	31	30	30-33 x 29-33	1.03	0.9-1.1	ret.-co.ret.	725	GLABRA	Nilsson 2002
densiflora	Colombia	Haught 5105 (US)	31	31	31-32 x 28-35	1	0.9-1.1	ret.-co.ret.	981	GLABRA	Nilsson 2002
densiflora	Colombia	Lehmann 2087 (US)	33	31	30-36 x 28-33	1.06	1.0-1.2	ret.-co.ret.	1172	GLABRA	Nilsson 2002
densiflora	Colombia	Purdie s.n. (K)	34	35	32-36 x 33-37	0.97	0.9-1.0	ret.-co.ret.	3346	GLABRA	Nilsson 2002
domingensis	Dominican Rep.	Allard 18215 (S)	28	30	24-31 x 28-33	0.93	0.8-1.0	ret.-co.ret.	1164	GLABRA	Nilsson 2002
duquei	Colombia	Cuatrecasas 21824 (F)	34	31	31-39 x 28-33	1.1	1.0-1.2	ret.-co.ret.	1752	GLABRA	Nilsson 2002
duquei	Colombia	Cuatrecasas 21824 (US)	34	33	31-39 x 29-39	1.03	1.0-1.1	ret.-co.ret.	488	GLABRA	Nilsson 2002
elix	Ecuador	Steyermark 53548 (US)	30	35	26-33 x 29-35	0.86	0.8-1.0	ret.-co.ret.	699	GLABRA	Nilsson 2002
gentryi	Peru	Woytkowski 35417 (F)	34	35	33-36 x 33-36	0.97	0.9-1.0	verr.	2706	CORYMBOSA	Nilsson 2002
glabra	Colombia	Daniel 1450 (F)	31	32	26-35 x 29-34	0.97	0.8-1.2	ret.-co.ret.	1750	GLABRA	Nilsson 2002
glabra	Colombia	Holton 470 (NY)	29	34	23-33 x 31-37	0.85	0.8-1.0	ret.-co.ret.	1912	GLABRA	Nilsson 2002
glabra	Colombia	Killip 34074 (S)	33	34	29-35 x 31-40	0.97	0.8-1.1	ret.-co.ret.	1910	GLABRA	Nilsson 2002
glabra	Colombia	Pennell 2195 (NY)	38	34	35-41 x 33-36	1.12	1.1-1.2	ret.-co.ret.	1911	GLABRA	Nilsson 2002
gracilis	Peru	Weberbauer 6116 (F)	37	38	34-40 x 34-41	0.97	0.9-1.1	ret.-co.ret.	2720	GLABRA	Nilsson 2002
jalca	Peru	Stork & Horton 10118 (K)	34	36	31-36 x 33-39	0.94	0.9-1.1	ret.-co.ret.	3345	GLABRA	Nilsson 2002
jalca	Peru	Stork & Horton 10118 (NA)	35	31	33-39 x 30-33	1.13	1.1-1.2	ret.-co.ret.	1653	GLABRA	Nilsson 2002
kuelap	Peru	Williams 7596 (F)	30	32	29-33 x 30-33	0.94	0.9-1.1	ret.-co.ret.	726	GLABRA	Nilsson 2002
luna-gentiana	Ecuador	André 4513 (F)	38	39	35-43 x 32-42	0.97	0.9-1.1	ret.-co.ret.	2719	GLABRA	Nilsson 2002
macrophylla	Colombia	Killip & Garcia 33650 (S)	28	33	26-31 x 29-36	0.85	0.8-0.9	ret.-co.ret.	1928	GLABRA	Nilsson 2002
macrophylla	Colombia	Pennell 10670 (PH)	28	31	25-30 x 28-33	0.9	0.8-1.0	ret.-co.ret.	1853	GLABRA	Nilsson 2002
micrantha	Peru	Klug 3138 (F)	29	33	26-32 x 31-34	0.88	0.8-0.9	ret.-co.ret.	652	GLABRA	Nilsson 2002

micrantha	Peru	Klug 3138 (S)	28	31	24-30 x 28-33	0.9	0.8-1.0	ret.-co.ret.	730	GLABRA	Nilsson 2002
neblinae	Venezuela	Maguire 37103 (NY)	—	—	—	—	—	—	—	GLABRA	Maguire1981
noctiluca	Ecuador	Steyermark 54812 (F)	30	34	28-33 x 33-36	0.88	0.8-1.0	ret.-co.ret.	951	GLABRA	Nilsson 2002
normae	Peru	Vargas 4196 (US)	32	31	31-34 x 30-33	1.03	0.9-1.1	verr.,muri visible	742	CORYMBOSA	Nilsson 2002
normae	Peru	Weberbauer 7921 (F)	34	34	33-35 x 33-36	1	0.9-1.1	verr.	731	CORYMBOSA	Nilsson 2002
obtusifolia	Brazil	Barreto 8845 (F)	34	38	33-35 x 33-41	0.89	0.8-1.0	ret.-(co.ret.)	729	GLABRA	Nilsson 2002
obtusifolia	Brazil	Wilkes Exp. s.n. (US)	29	32	25-33 x 28-35	0.91	0.8-1.0	ret.-co.ret.	653	GLABRA	Nilsson 2002
pachyphylla	Colombia	Cuatrecasas 11785 (US)	33	35	31-36 x 33-37	0.94	0.8-1.1	ret.-co.ret.	727	GLABRA	Nilsson 2002
pachystyla	Peru	Ruiz & Pavón s.n. (F)	35	34	31-35 x 31-36	1.03	0.8-1.1	verr.	982	CORYMBOSA	Nilsson 2002
piresii	Brazil	Maguire et al. 60453	—	—	—	—	—	—	—	GLABRA	Maguire1981
revoluta	Peru	Stork & Horton 9913 (K)	34	35	31-35 x 32-39	0.97	0.8-1.0	verr.,muri visible	4110	CORYMBOSA	Nilsson 2002
rubra	Brazil	Dusén 15790 (MO)	32	33	29-34 x 32-35	0.97	0.9-1.0	ret.-(co.ret.)	712	GLABRA	Nilsson 2002
rubra	Brazil	Dusén 15790 (NY)	28	33	23-31 x 28-39	0.85	0.7-1.1	ret.	1913	GLABRA	Nilsson 2002
rubra	Brazil	Dusén 15790 (U)	35	35	32-39 x 31-39	1	0.9-1.1	ret.-(co.ret.)	72	GLABRA	Nilsson 2002
rubra	Brazil	Dusén 6965 (F)	28	28	25-32 x 23-32	1	0.8-1.4	ret.-(co.ret.)	1851	GLABRA	Nilsson 2002
rubra	Brazil	Dusén 6965 (S)	28	32	26-32 x 31-33	0.88	0.8-1.0	ret.-(co.ret.)	1915	GLABRA	Nilsson 2002
rugosa	Venezuela	Steyermark & Wurdack 861	—	—	—	—	—	—	—	GLABRA	Maguire1981
schultesii	Colombia	Cuatrecasas et al. 12271 (F)	33	36	26-35 x 34-40	0.92	0.8-1.0	ret.-co.ret.	1161	GLABRA	Nilsson 2002
schultesii	Colombia	Cuatrecasas et al. 12271 (MO)	33	32	31-36 x 30-36	1.03	0.9-1.2	ret.-co.ret.	1930	GLABRA	Nilsson 2002
sodiroana	Colombia	Cuatrecasas 14986 (F)	29	31	26-33 x 29-33	0.94	0.8-1.2	ret.-co.ret.	1751	GLABRA	Nilsson 2002
stenophylla	Peru	Williams 7582 (F)	30	31	28-35 x 28-35	0.97	0.9-1.2	ret.-(co.ret.)	724	GLABRA	Nilsson 2002
subsessilis	Ecuador	Steyermark 54805 (F)	32	33	30-34 x 31-36	0.97	0.9-1.1	ret.-co.ret.	952	GLABRA	Nilsson 2002
thamnoides	Jamaica	Harris 5353 (US)	29	28	25-33 x 25-33	1.04	0.9-1.3	ret.-co.ret.	654	GLABRA	Nilsson 2002
thamnoides	Jamaica	Harris 7718 (F)	32	33	30-33 x 32-36	0.97	0.8-1.0	ret.-co.ret.	2805	GLABRA	Nilsson 2002
valerii	Costa Rica	Smith 1001 (F)	29	34	26-31 x 32-35	0.85	0.8-0.9	ret.-co.ret.	979	GLABRA	Nilsson 2002

APPENDIX J

Catalogue of Herbarium specimens cited in the only monograph of *Macrocarpaea* (Ewan 1948)

Species	Country	Province	Locality	Elev(m)	Date	Year	Collector	Coll #	Herb
<i>affinis</i>	Colombia	Santander	15 km W of Bolivar, 30 km NW of Velez		24-Apr-44	1944	Fassett	25120	NA
<i>arborescens</i>	Ecuador	Loja		3000	1 Dec 1876	1876	André	4549	F
<i>arborescens</i>	Colombia	Cauca	W Andes of Popayan	1800-2500		1882	Lehmann	5450	US
<i>arborescens</i>	Ecuador					1840	Lobb	s.n.	F
<i>arborescens</i>	Ecuador	Loja	Hualaseo or Loja		1805	1805	Tafalla	540 or 572	F
<i>bangiana</i>	Bolivia	La Paz	Yungas		1890	1890	Bang	520	F, G, MO, NY, US
<i>bangiana</i>	Bolivia	La Paz	Santa Bárbara		29 Aug 1902	1902	Williams, R.S.	1561	NY
<i>bracteata</i>	Venezuela	Lara	Las Sabanetas above Los Aposentos, W of Humocaro Bajo	2530	5-Feb-44	1944	Steyermark	55287	F, US
<i>bracteata</i>	Venezuela	Lara	Palojosco above Los Apostentos, above Humocaro Bajo	2375-2530	4-Feb-44	1944	Steyermark	55224	F, US
<i>calophylla</i>	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra	4500	Jan 1843	1843	Funcke	530	
<i>cochabambensis</i>	Bolivia	La Paz	Near Yungas	4000 ft	0 1885	1885	Rusby	1172	NY
<i>cochabambensis</i>	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	1929	Steinbach	8992	F, MO
<i>cuatrecasasii</i>	Colombia	Caquetá	Comisaría del Caquetá	2300-2450	21-Mar-40	1940	Cuatrecasas	8435	US
<i>densiflora</i>	Colombia	Cauca	Popayán, Mountains of Pitayo			1836	Hartweg	1241	K
<i>densiflora</i>	Colombia	Cauca	Páramo de Moras	3000-3500	29 Oct 1882	1882	Lehmann	2087	US
<i>domingensis</i>	Dominican Rep	Santo Domingo	Loma La Campana	1200	11-Feb-29	1929	Ekman	H11504	US
<i>duquei</i>	Colombia	Valle	Los Farallones, Alto del Buey	3300-3450	13-Oct-44	1944	Cuatrecasas	18077	US
<i>duquei</i>	Colombia	Valle	Los Farallones, Quebrada de Las Nieves	3000-3120	31-Jul-46	1946	Cuatrecasas	21824	US
<i>duquei</i>						1930	Duque-Jaramillo	2	
<i>elix</i>	Ecuador	Morona-Santiago	Along Río Tintas, between Campanas and Arenillas	2195	13-Jul-43	1943	Steyermark	53548	F, US
<i>fortisiana</i>	Peru	Puno	Sandia, near Sagrario	1000-1300	26-May-42	1942	Metcalfe	30629	US
<i>glabra</i>	Colombia	Cundinamarca	Macizo de Bogotá, Sierra de Siete Picos	2900-3100	29-Jun-39	1939	Cuatrecasas	5672	US
<i>glabra</i>	Colombia	Cundinamarca	Bogotá, Monserrate	2950	Mar-16	1916	Dawe	11	US
<i>glabra</i>	Colombia	Cundinamarca	Bogotá		1845	1845	Goudot	1	K
<i>glabra</i>	Colombia	Cundinamarca	Bogotá, Monserrate		7 Oct 1852	1852	Holton	470	GH, NY, PH
<i>glabra</i>	Colombia	Cundinamarca	Páramo de Guasca, Los Gaques	3250	12-Mar-39	1939	Killip	34074	US
<i>glabra</i>	Colombia	Cundinamarca	Bogotá, Monserrate	3000-3300	16-Apr-44	1944	Killip et al.	38076	US
<i>glabra</i>	Colombia					1783	Mutis	90	US

glabra	Colombia					1783	Mutis	333	US
glabra	Colombia					1783	Mutis	4562	US
<i>glabra</i>	Colombia					1783	Mutis	s.n.	LINN
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3355	19-Dec-29	1929	Niemeyer	215	US
glabra	Colombia	Cundinamarca	Bogotá, SW of Las Cruces	3000-3100	24-Sep-17	1917	Pennell	2195	PH
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		Jul-31	1931	Pérez Arbeláez	1058	US
glabra	Colombia	Cundinamarca	Bogotá		31-Dec-08	1908	Purdie	s.n.	GH
glabra	Colombia	Cundinamarca	Bogotá			1851	Triana	1965	US
<i>glaziovii</i>	Brazil	Rio de Janeiro	Floresta da Tijuca		7 Oct 1871	1871	Glaziou	4939	K
<i>glaziovii</i>	Brazil	Minas Gerais		1000		1824	Langsdorff	s.n.	K
gracilis	Peru	Cajamarca	Huancabamba		1909-1914	1900	Weberbauer	6116	F
jalca	Peru	Cajamarca	Cutervo, 10 km NW of Socota	3200	10-Dec-38	1938	Stork & Horton	10118	NA
kuelap	Peru	Amazonas	Central Cordillera of the Andes, Chachapoyas to Moyobamba	2700-3300	Jan-30	1930	Williams	7596	F
<i>loranthoides</i>	Peru	Amazonas	Chachapoyas	2400-2500		1900	Weberbauer	4411	G
luna-gentiana	Ecuador	Loja	Loja-Zamora	3800	1 Dec 1876	1876	André	4513	F
macrophylla	Colombia	Cauca	Novillenos Quindio		13 Mar 1876	1876	André	2359	F
macrophylla	Colombia		Ibagué			1876	André	K1379	F
macrophylla	Colombia	Antioquia	Medellín	2000	26-Dec-30	1930	Archer	1088	US
macrophylla	Colombia	Antioquia	Santa Elena	1500-1800	Jan-31	1931	Archer	1276	US
macrophylla	Colombia	Antioquia	La Ceja		Jul-36	1936	Daniel	964	US
macrophylla	Colombia	Antioquia	Alto Capiro, above Sonsón-Abejorral camino	2800	26-May-44	1944	Ewan	15765	NA
<i>macrophylla</i>	Colombia	Cauca				1799	Humboldt, Bonpland & Kunth	s.n.	P-HBK
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	1939	Killip & Garcia	33650	US
macrophylla	Colombia	Valle	Cordillera von Cali	2000	16 Aug 1883	1883	Lehmann	3029	US
macrophylla	Colombia		Inza	1800		1882	Lehmann	6626	US
macrophylla	Colombia	Bolívar/Antioquia	Páramo de Chaquiro	2800-3100	24-Feb-18	1918	Pennell	4334	PH
macrophylla	Colombia	Caldas	San Clemente	1800-2200	16-Sep-22	1922	Pennell	10670	PH
macrophylla	Colombia	Cauca	Cuestá de Tocatá, road from Buenaventura Calí	1500-1900	Dec-05	1905	Pittier	736	US
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	Aug-33	1933	Klug	3138	F, GH, MO, US
<i>micrantha</i>	Peru	San Martín	Propre Tarapoto		1855-1856	1855	Spruce	4618	C, G
<i>micrantha</i>							Weberbauer	4655	B
nicotianifolia	Colombia	Cundinamarca	Entre San Miguel y Aguadita	1980-2360	21-Apr-46	1946	García-Barriga	12061	COL, US

noctiluca	Ecuador	Loja	Namandu	2400-2500	18-Apr-46	1946	Espinosa, R.	198	US
noctiluca	Ecuador	Loja	NW slopes of Nudo de Sabanilla, around Tambo Cachiyacu	2000-3000	19-Oct-43	1943	Steyermark	54812	F
normae	Peru	Cuzco	Convención, Lucumaya: Choquellohuanca	1700	28-Apr-44	1944	Vargas, C.	4196	US
normae	Peru	Cuzco	Calca, Lares Valley between Hualhuayoj and Calca	—	9-Mar-29	1929	Weberbauer	7921	F
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, km. 138 estrada de Conceção	—	4-Feb-38	1938	Mello Barreto	8845	F
obtusifolia	Brazil	Minas Gerais	—	—	—	1824	Riedel	s.n.	GH
<i>obtusifolia</i>	Brazil	Rio de Janeiro	—	—	—	1815	Sellow	s.n.	K
obtusifolia	Brazil	Minas Gerais	—	—	1838-1842	1838	Wilkes	s.n.	US
pachyphylla	Colombia	Putumayo	Páramo de Bordoncillo	3250	4-Jan-41	1941	Cuatrecasas	11785	US
pachyphylla	Colombia	Nariño	Río de Potreros	3200-3400	3-Dec-44	1944	Ewan	16531	NA
pachyphylla	Colombia	Nariño	Pasto	305	1846-1869	1846	Jameson	467	US
pachystyla	Peru	Huánuco	—	—	—	1780	Ruíz & Pavón	s.n.	F
pachystyla	Peru	Huánuco	—	—	—	1780	Ruíz & Pavón	s.n.	F
papillosa	Venezuela	Mérida	Between La Cumbre, San José, and Mucutuy	1820-2590	3-May-44	1944	Steyermark	56239	F
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam	—	1860	1860	Wright	1347	GH
pringleana	Ecuador	Pastaza	Baños near Rio Negro	400-500	23-Feb-35	1935	Mexia	6977	NA, US
revoluta	Peru	Junín	La Merced	610	10-Aug-23	1923	MacBride	5224	F
revoluta	Peru	—	—	—	—	1786	Ruíz & Pavón	s.n.	F
revoluta	Peru	Huánuco	Carpish	2850	9-Nov-38	1938	Stork & Horton	9913	GH
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	1909	Dusén	6965	US
rubra	Brazil	Paraná	Desvio Ypiranga	—	31-Oct-14	1914	Dusén	15790	US
rubra	Brazil	Paraná	Serra do Mar, Ypiranga	830	4-Nov-14	1914	Dusén	17288	GH
rubra	Brazil	Paraná	Desvio Ypiranga	830	27-Oct-08	1908	Dusén	s.n.	GH
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	1941	Cuatrecasas et al.	12271	US
schultesii	Colombia	N de Santander	Road from Pamplona to Toledo	2500-2800	28-Feb-27	1927	Killip & Smith	19818	GH, US
schultesii	Colombia	N de Santander	Páramo de Hático, Toledo to Pamplona	2900	12-Mar-27	1927	Killip & Smith	20613	GH, US
sodiroana	Colombia	Valle	Hoya del Río Digua, Piedra de Moler	900-1180	19-Aug-43	1943	Cuatrecasas	14986	F, US
<i>sodiroana</i>	Ecuador	Pichincha	Crescit in reg. subtr., sec. Fl. Pilatón	—	Jan 1889	1889	Sodiro	s.n.	QPLS
<i>stenophylla</i>	—	—	—	—	—	—	Stübel	24c	—
stenophylla	Peru	Amazonas	Central Cordillera of the Andes	2700-3300	Jan-30	1930	Williams	7582	F
subcaudata	Costa Rica	San José	La Palma	1500	Nov 1902	1902	Wercklé	16492	US
subsessilis	Ecuador	Loja	Between Tambo Cachiyacu, La Entrada, and Nudo de Sabanilla	2500-3500	7-Oct-43	1943	Steyermark	54436	F, US

<i>subsessilis</i>	Ecuador	Loja	Between Nudo de Sabanilla and Río Cachiyacu	3000-3500	17-Oct-43	1943	Steyermark	54758	F
<i>subsessilis</i>	Ecuador	Loja	W slopes of Cordillera de Condor	2000-3000	19-Oct-43	1943	Steyermark	54805	F, US
<i>thamnoides</i>	Jamaica		Vinegar Hill		15 Aug 1894	1894	Harris	5352	BM
<i>thamnoides</i>	Jamaica		Vinegar Hill		15 Aug 1894	1894	Harris	5353	US
<i>thamnoides</i>	Jamaica		Propre Vinegar Hill		16 Sep 1895	1895	Harris	6048	F
<i>thamnoides</i>	Jamaica		Road to St. Georges		9 Aug 1899	1899	Harris	7718	F
<i>thamnoides</i>	Jamaica		Gordon Town		1886	1886	Hart	1417	US
<i>thamnoides</i>	Jamaica		Vic of Morce's Gap	1500	23-Jun-04	1904	Maxon	2772	US
<i>valerii</i>	Costa Rica	Alajuela	La Peña de Zarcero	1675	30-Jul-38	1938	Smith, A.	H1001	F
<i>valerii</i>	Costa Rica	San José	La Hondura de San José	1300	15-Aug-33	1933	Valerio	692	F
<i>viscosa</i>	Peru	Huánuco			1786		Ruíz & Pavón	s.n.	MA-RUIZPAVON
<i>arborea</i>						1930	Beard	473	
<i>arborea</i>						1930	Britton	1295	
<i>arborea</i>						1930	Broadway	6207	
<i>cerronis</i>							Steyermark	60058	
<i>guttifera</i>							Killip & Smith	27045	
<i>quelchii</i>							McConnel & Quelch	106	
<i>quelchii</i>							McConnel & Quelch	649	
<i>quelchii</i>							Steyermark	58672	F, US
<i>quelchii</i>							Steyermark	58802	F, US
<i>salicifolia</i>							Steyermark	59721	
<i>salicifolia</i>							Steyermark	60279	

APPENDIX K**List of Exsiccatae: A Catalogue of Herbarium Specimens of *Macrocarpaea* (Gentianaceae: Helieae)**

Species	Country	Province	Locality	Elev (m)	Date	Collector(s)	#	Herb	Notes
affinis	Colombia	Santander	15 km W of Bolivar, 30 km NW of Velez		24-Apr-44	Fassett	25120	IAN	
affinis	Colombia	Santander	15 km W of Bolivar, 30 km NW of Velez		24-Apr-44	Fassett	25120	US	[2 sheets]
affinis	Colombia	Santander	Camino viejo entre Sucre y Bolívar	1900-2000	7-Aug-49	Uribe Uribe	1991	US	holo
affinis	Colombia	Santander	Camino antiguo entre Sucre y Bolívar	1600	1-Aug-52	Uribe Uribe	2432	COL	
affinis	Colombia	Santander	Camino antiguo entre Sucre y Bolívar	1600	1-Aug-52	Uribe Uribe	2432	F	
affinis	Colombia	Santander	Camino antiguo entre Sucre y Bolívar	1600	1-Aug-52	Uribe Uribe	2432	U	
angelliae	Ecuador					André	K1380	K	
angelliae	Ecuador	Loja	21.3 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4289	MO	
angelliae	Ecuador	Loja	21.3 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4289	NEU	
angelliae	Ecuador	Loja	21.3 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4289	NY	
angelliae	Ecuador	Loja	21.3 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4289	US	
angelliae	Ecuador	Loja	Carr. Loja-Zamora, collecciones en el km 15	2500	16-Aug-83	Jaramillo & Winnerskjold	5806	QCA	
angelliae	Ecuador	Loja	P.N. Podocarpus	3000	16-Jan-90	Knudsen	8	LOJA	
angelliae	Ecuador	Loja	P.N. Podocarpus	3000	16-Jan-90	Knudsen	8	QCA	
angelliae	Ecuador	Loja	P.N. Podocarpus	3000	16-Jan-90	Knudsen	8	S	
angelliae	Ecuador	Loja	Yangana-Valladolid Rd.	2500-3000	10-Dec-89	Madsen	86683	AAU	
angelliae	Ecuador	Loja	Yangana-Valladolid Rd.	2500-3000	10-Dec-89	Madsen	86683	LOJA	
angelliae	Ecuador	Loja	Yangana-Valladolid Rd.	2500-3000	10-Dec-89	Madsen	86683	QCA	*
angelliae	Ecuador	Loja	Yangana-Valladolid Rd.	2500-3000	10-Dec-89	Madsen	86683	QCNE	
angelliae	Ecuador	Zamora-Chinchipe	P.N. Podocarpus	2750-2950	18-Feb-89	Øllgaard	90630	AAU	
angelliae	Ecuador	Zamora-Chinchipe	P.N. Podocarpus	2750-2950	18-Feb-89	Øllgaard	90630	QCA	
angelliae	Ecuador	Zamora-Chinchipe	P.N. Podocarpus	2750-2950	14-Mar-89	Øllgaard	91065	AAU	
angelliae	Ecuador	Zamora-Chinchipe	P.N. Podocarpus	2750-2950	14-Mar-89	Øllgaard	91065	QCA	
angelliae	Ecuador	Zamora-Chinchipe	Carr. Loja-Zamora	2800-2900	15-Mar-89	Romoleroux	804	AAU	iso
angelliae	Ecuador	Zamora-Chinchipe	Carr. Loja-Zamora	2800-2900	15-Mar-89	Romoleroux	804	NY	holo
angelliae	Ecuador	Zamora-Chinchipe	Carr. Loja-Zamora	2800-2900	15-Mar-89	Romoleroux	804	QCA	iso
angustifolia	Peru	Pasco	Oxapampa, headwaters of Río Tunqui, trail to Chuchurras-Palcazu, 75 28 W, 10 14 S	1900	2-Jan-84	Foster, R. et al.	7747	MO	not seen

angustifolia	Peru	Pasco	Oxapampa, headwaters of Río Tunqui, trail to Chuchurras-Palcazu, 75 28 W, 10 14 S	1900	2-Jan-84	Foster, R. et al.	7747	USM	iso
apparata	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3995	LOJA	
apparata	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3995	NEU	
apparata	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3995	NY	
apparata	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3995	QCNE	
apparata	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3995	US	[2 sheets]
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3998	LOJA	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3998	NEU	[2 sheets]
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3998	NY	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3998	QCNE	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3998	US	[2 sheets]
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3999	LOJA	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3999	NEU	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3999	NY	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3999	QCNE	
apparata	Ecuador	Loja	29.6 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	3999	US	[2 sheets]
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4001	LOJA	
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4001	NEU	[4 sheets]
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4001	NY	
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4001	QCNE	
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4001	US	[4 sheets]
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	G	iso [2 sheets]
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	LOJA	iso
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	MO	iso
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	NEU	iso [2 sheets]
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	NY	iso
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	QCA	iso
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	QCNE	iso
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	S	iso
apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	SBG	iso

apparata	Ecuador	Loja	30.9 km S of Yangana	2450	11-Feb-01	Grant, J.R. & Struwe	4002	US	holo [3 sheets]
apparata	Ecuador	Loja	30.1 km S of Yangana		5-Nov-02	Grant, J.R. et al.	4292	NEU	
apparata	Ecuador	Loja	30.1 km S of Yangana		5-Nov-02	Grant, J.R. et al.	4292	NY	
apparata	Ecuador	Loja	30.1 km S of Yangana		5-Nov-02	Grant, J.R. et al.	4292	US	
arborescens	Ecuador	Loja		3000	1 Dec 1876	André	4549	F	
arborescens	Ecuador	Loja			1 Dec 1876	André	4549	GH	
arborescens	Ecuador	Loja			1 Dec 1876	André	4549	NY	
arborescens	Ecuador	Loja	Loma de Oro, 10 km S of Saraguro	3300	2-Jan-81	Balslev	1385	AAU	
arborescens	Ecuador	Loja	Loma de Oro, 10 km S of Saraguro	3300	2-Jan-81	Balslev	1385	NY	
arborescens	Ecuador	Loja	Road Loja-Saraguro	3000	15-Feb-87	Bohlin et al.	1357	GB	
arborescens	Ecuador	Loja	Road Loja-Saraguro	3000	15-Feb-87	Bohlin et al.	1357	QCA	*
arborescens	Ecuador	Azuay	Páramo de Castillo	2745-3355	18-Aug-45	Camp	4795	NO	
arborescens	Ecuador	Azuay	Páramo de Castillo	2745-3355	18-Aug-45	Camp	4795	NY	
arborescens	Ecuador	Azuay	Páramo de Castillo	2745-3355	18-Aug-45	Camp	4795	S	
arborescens	Ecuador	Loja	Nudo de Cajanuma	3000	2-Jul-00	Chassot	00-15	NEU	
arborescens	Ecuador	Loja	5 km S of Saraguro	2600-2700	7-Oct-88	Ellemann	66594	AAU	
arborescens	Ecuador	Loja	5 km S of Saraguro	2600-2700	7-Oct-88	Ellemann	66594	LOJA	
arborescens	Ecuador	Loja	5 km S of Saraguro	2600-2700	7-Oct-88	Ellemann	66594	QCA	*
arborescens	Ecuador	Loja	Hac. Horta-Naque	3100	7-Nov-46	Espinosa, R.	897	K	
arborescens	Ecuador	Azuay	Sevilla de Oro, en el Camino Sevilla de Oro-Mendez, llegando al Páramo del Castillo	3300	29-Aug-96	Garmendia & Cisneros	1113	QCNE	
arborescens	Ecuador	Azuay	Sevilla de Oro, en el Camino Sevilla de Oro-Mendez, llegando al Páramo del Castillo	3300	31-Aug-96	Garmendia & Cisneros	1171	QCNE	
arborescens	Ecuador	Morona-Santiago	Río Yacuambi, region de Rumetranca, Cooral-Huica	2300-3000	1-Jan-44	Goetschel	94945	VEN	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	G	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	LOJA	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	NEU	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	NY	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	QCA	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	QCNE	
arborescens	Ecuador	Loja	Cajanuma Field Station, and trail to Mirador	2950	17-Feb-01	Grant, J.R. & Struwe	4066	US	

arborescens	Ecuador	Loja	From Loja-Saraguro road, then 2.2 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4075	G	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 2.2 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4075	LOJA	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 2.2 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4075	NEU	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 2.2 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4075	NY	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 2.2 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4075	QCA	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 2.2 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4075	QCNE	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 3 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4084	G	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 3 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4084	LOJA	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 3 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4084	NEU	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 3 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4084	NY	
arborescens	Ecuador	Loja	From Loja-Saraguro road, then 3 km on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4084	QCNE	
arborescens	Ecuador	Loja	21.3 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4290	NEU	
arborescens	Ecuador	Loja	21.3 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4290	NY	
arborescens	Ecuador	Loja	Loma de Loro	3200	11-Feb-85	Harling & Andersson	21918	GB	
arborescens	Ecuador	Cañar	At pass on road Pindilig-Rivera	3200	9-Mar-85	Harling & Andersson	22989	GB	
arborescens	Ecuador	Cañar	At pass on road Pindilig-Rivera	3200	9-Mar-85	Harling & Andersson	22989	QCA	*
arborescens	Ecuador	Morona-Santiago	Sigsig-Gualaquiza		9-Apr-68	Harling et al.	8117	GB	
arborescens	Ecuador	Azuay	Road in construction Sigsig-Gualaquiza, Campamento Molón, ca. 1 km below Molón	2800-3000	11-Dec-68	Harling et al.	8236	GB	
arborescens	Ecuador	Azuay	Road in construction Sigsig-Gualaquiza, Campamento Molón, ca. 1 km below Molón	2800-3000	11-Dec-68	Harling et al.	8236	QCA	*
arborescens	Ecuador	Loja	Mountains below Saraguro and San Lucas		8 Sep 1865	Jameson	67	K	
arborescens	Ecuador	Azuay	Pica Sevilla de Oro-Méndez "collecciones entre Sevilla de Oro-Páramo del Castillo"	2800-3250	7-Aug-83	Jaramillo	5588	QCA	*
arborescens	Ecuador	Loja	Loma del Oro	2800-3200	4-Aug-86	Jaramillo et al.	8816	QCA	*
arborescens	Ecuador	Azuay	Carr. Zigzig-Molón-Gualaquiza	2810	6-Aug-86	Jaramillo et al.	8856	AAU	
arborescens	Ecuador	Azuay	Carr. Zigzig-Molón-Gualaquiza	2810	6-Aug-86	Jaramillo et al.	8856	NY	
arborescens	Ecuador	Azuay	Carr. Zigzig-Molón-Gualaquiza	2810	6-Aug-86	Jaramillo et al.	8856	QCA	[2 sheets]
arborescens	Ecuador	Azuay	Km 74 de Cuenca, Carr. Zigzig-Molón-Gualaquiza	2790	6-Aug-86	Jaramillo et al.	8866A	QCA	

arborescens	Ecuador	Loja	Saraguro-Loja, km 12.4, turnoff towards Fierro Urco	3120-3390	7-Dec-94	Jørgensen et al.	1314	HAM	
arborescens	Ecuador	Loja	Saraguro-Loja, km 12.4, turnoff towards Fierro Urco	3120-3390	7-Dec-94	Jørgensen et al.	1314	LOJA	
arborescens	Ecuador	Loja	Saraguro-Loja, km 12.4, turnoff towards Fierro Urco	3120-3390	7-Dec-94	Jørgensen et al.	1314	MO	
arborescens	Ecuador	Loja	Saraguro-Loja, km 12.4, turnoff towards Fierro Urco	3120-3390	7-Dec-94	Jørgensen et al.	1314	NY	
arborescens	Ecuador	Loja	Saraguro-Loja, km 12.4, turnoff towards Fierro Urco	3120-3390	7-Dec-94	Jørgensen et al.	1314	QCA	*
arborescens	Ecuador	Loja	Saraguro-Loja, km 12.4, turnoff towards Fierro Urco	3120-3390	7-Dec-94	Jørgensen et al.	1314	QCNE	
arborescens	Colombia	Cauca	W Andes of Popayan	1800-2500		Lehmann	5450	F	isolect
arborescens	Colombia	Cauca	W Andes of Popayan	1800-2500		Lehmann	5450	GH	lect
arborescens	Colombia	Cauca	W Andes of Popayan	1800-2500		Lehmann	5450	K	isolect
arborescens	Colombia	Cauca	W Andes of Popayan	1800-2500		Lehmann	5450	US	isolect
arborescens	Ecuador	Loja	P.N. Podocarpus, Cajanuma	3000	29-Oct-77	Lewis	3674	AAU	
arborescens	Ecuador	Loja	P.N. Podocarpus, Cajanuma	3000	29-Oct-77	Lewis	3674	QCNE	
arborescens	Colombia					Lobb	22	K	
arborescens	Ecuador					Lobb	s.n.	F	
arborescens	Ecuador					Lobb	s.n.	W	
arborescens	Ecuador	Loja	Páramos de Saraguro, páramo ca. 7 km S of Saraguro	3000	2-Jan-79	Luteyn et al.	6669	NY	
arborescens	Ecuador	Loja	Páramos de Saraguro, páramo ca. 7 km S of Saraguro	3000	2-Jan-79	Luteyn et al.	6669	QCA	*
arborescens	Ecuador	Loja	P.N. Podocarpus, Nudo de Cajanuma	3000-3150	6-Sep-88	Madsen & Elleman	75280	AAU	[2 sheets]
arborescens	Ecuador	Loja	P.N. Podocarpus, Nudo de Cajanuma	3000-3150	6-Sep-88	Madsen & Elleman	75280	LOJA	
arborescens	Ecuador	Loja	P.N. Podocarpus, Nudo de Cajanuma	3000-3150	6-Sep-88	Madsen & Elleman	75280	QCA	*
arborescens	Ecuador	Loja	P.N. Podocarpus, Nudo de Cajanuma	3000-3150	6-Sep-88	Madsen & Elleman	75280	QCNE	
arborescens	Ecuador	Loja	P.N. Podocarpus, above the refuge of Cajanuma, at the point 'Mirador'	2950	1-Nov-97	Matt	2	ER	
arborescens	Ecuador	Loja	P.N. Podocarpus, above the refuge of Cajanuma, at the point 'Mirador'	2950	1-Nov-97	Matt	3	ER	
arborescens	Ecuador	Loja	Ca. Km 5 rd Fierro Ucu from Pichig	3100-3200	12-Feb-89	Øllgaard & Madsen	90494	AAU	
arborescens	Ecuador	Loja	Ca. Km 5 rd Fierro Ucu from Pichig	3100-3200	12-Feb-89	Øllgaard & Madsen	90494	LOJA	
arborescens	Ecuador	Loja	Ca. Km 5 rd Fierro Ucu from Pichig	3100-3200	12-Feb-89	Øllgaard & Madsen	90494	QCA	*
arborescens	Ecuador	Loja	Ca. Km 5 rd Fierro Ucu from Pichig	3100-3200	12-Feb-89	Øllgaard & Madsen	90494	QCNE	
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	2950-3000	22-Feb-85	Øllgaard et al.	57953	AAU	
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	2950-3000	22-Feb-85	Øllgaard et al.	57953	LOJA	
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	2950-3000	22-Feb-85	Øllgaard et al.	57953	QCA	*
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	2950-3000	22-Feb-85	Øllgaard et al.	57953	QCNE	

arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	3000-3200	22-Feb-85	Øllgaard et al.	57983	AAU	
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	3000-3200	22-Feb-85	Øllgaard et al.	57983	LOJA	
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	3000-3200	22-Feb-85	Øllgaard et al.	57983	QCA	*
arborescens	Ecuador	Loja	P.N. Podocarpus, S of Loja	3000-3200	22-Feb-85	Øllgaard et al.	57983	QCNE	
arborescens	Ecuador	Loja	Páramo de Saraguro		17-Mar-83	Pipoly	6393	GB	
arborescens	Ecuador	Loja	Páramo de Saraguro		17-Mar-83	Pipoly	6393	NY	
arborescens	Ecuador	Loja	Hualaseo		10-Dec-08	Tafalla	540	MA-RUIZP AVON	[2 sheets]
arborescens	Ecuador	Loja	Loja		10-Dec-08	Tafalla	572	MA-RUIZP AVON	
arborescens	Ecuador	Loja	Hualaseo or Loja		10-Dec-08	Tafalla	540 or 572	BM	[2 sheets]
arborescens	Ecuador	Loja	Hualaseo or Loja		10-Dec-08	Tafalla	540 or 572	F	
arborescens	Ecuador	Loja	Hualaseo or Loja		10-Dec-08	Tafalla	540 or 572	G	
auriculata	Costa Rica	Puntarenas	Res. Biol. Monteverde, Ref. Veracruz	1500	9-Jan-90	Bello	1715	CR	
auriculata	Costa Rica	Puntarenas	Res. Biol. Monteverde, Ref. Veracruz	1500	9-Jan-90	Bello	1715	MO	
auriculata	Costa Rica	Heredia	Rio Vueltas	2100	23-May-69	Gómez	2265	F	iso
auriculata	Costa Rica	Heredia	Rio Vueltas	2100	23-May-69	Gómez	2265	GH	holo
auriculata	Costa Rica	Heredia	Rio Vueltas	2100	23-May-69	Gómez	2265	MO	iso
auriculata	Costa Rica	Heredia	Rio Vueltas	2100	23-May-69	Gómez	2265	NY	iso
auriculata	Costa Rica	Alajuela	Fila Volcán Viejo, San Carlos	1800-2000	11-Feb-86	Gómez-Laurito	11059	F	
auriculata	Costa Rica	Puntarenas	Monteverde reserve	1600	26-May-79	Haber	336	GH	
auriculata	Costa Rica	Puntarenas	Monteverde reserve	1600	26-May-79	Haber	336	MO	
auriculata	Costa Rica	Puntarenas	Res. Biol. Monteverde, Sendero brillante	1500	25-Aug-85	Haber & Bello	2455	F	
auriculata	Costa Rica	Puntarenas	Res. Biol. Monteverde, Sendero brillante	1500	25-Aug-85	Haber & Bello	2455	MO	
auriculata	Costa Rica	Puntarenas	Río Veracruz, Zona Monteverde, Finca Hermanos Morales		7-Aug-87	Haber & Bello	7389	MO2	
auriculata	Costa Rica	Puntarenas	Monteverde Cloud Forest Reserve, road to TV towers, Pacific slope	1600	23-Apr-86	Haber ex Bello & Lierheimer	4539	MO	
auriculata	Costa Rica	Heredia	12 km NNE of San Rafael, Cerro Chompipe	2074-2135	22-May-72	Wilbur & Almeda	16828	DUKE	
auriculata	Costa Rica	Heredia	12 km NNE of San Rafael, Cerro Chompipe	2074-2135	22-May-72	Wilbur & Almeda	16828	F	
auriculata	Costa Rica	Heredia	12 km NNE of San Rafael, Cerro Chompipe	2074-2135	22-May-72	Wilbur & Almeda	16828	GH	

autanae	Venezuela	Amazonas	Cumbre del Cerro Autana	1230-1270	21-Sep-71	Steiermark	10519 1	NY	iso
autanae	Venezuela	Amazonas	Cumbre del Cerro Autana	1230-1270	21-Sep-71	Steiermark	10519 1	VEN	holo NOT SEEN
ayangannae	Guyana	Potaro-Siparuni	Mt. Ayanganna, east face, plateau above third of four escarpments	1570	19-Jun-01	Clarke, H.D. et al	9364	U2	
ayangannae	Guyana	Cuyoni-Mazaruni	Mt. Ayanganna	1350-1380	11-Mar-87	Pipoly et al.	11103	NY	iso [at NY, not on loan]
ayangannae	Guyana	Cuyoni-Mazaruni	Mt. Ayanganna	1350-1380	11-Mar-87	Pipoly et al.	11103	US	holo; iso [2 sheets total]
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	BM	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	E	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	G	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	G	iso (G-DEL)
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	G	iso (G-BOIS)
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	GH	iso [2 sheets]
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	K	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	M	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	MANC H	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	MICH	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	MO	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	NY	lect [2 sheets]
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	PH	iso
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	US	iso 2nd sheet not on loan
bangiana	Bolivia	La Paz	Yungas	—	5-Mar-09	Bang	520	W	iso
bangiana	Bolivia	La Paz	Nor Yungas, La Paz hacia Coroico	2525	29-Dec-83	Beck	8699	LPB	not seen
bangiana	Bolivia	La Paz	Nor Yungas, La Paz hacia Coroico	2525	29-Dec-83	Beck	8699	NEU	gift from LPB
bangiana	Bolivia	La Paz	Nor Yungas, La Paz hacia Coroico	2525	29-Dec-83	Beck	8699	U	
bangiana	Bolivia	La Paz	Sud Yungas, Huanacané	2450	1-Jan-84	Beck	8745	LPB	not seen
bangiana	Bolivia	La Paz	Sud Yungas, Huanacané	2450	1-Jan-84	Beck	8745	NEU	gift from

									LPB
bangiana	Bolivia	La Paz	Sud Yungas, Huanacané	2450	1-Jan-84	Beck	8745	U	
bangiana	Bolivia	La Paz	Sud Yungas, Huanacané, 10 km hacia San Isidro		5-Aug-00	Beck	24867	US/	not on loan
bangiana	Bolivia	La Paz	Nor Yungas, 13.7 km NW of San Pedro	1500	15-Jan-93	Solomon	9275	MO	
bangiana	Bolivia	La Paz	Nor Yungas, 13.7 km NW of San Pedro	1500	15-Jan-93	Solomon	9275	U	
bangiana	Bolivia	La Paz	Santa Bárbara		29 Aug 1902	Williams, R.S.	1561	NY	[iso M. peduncularis Rusby ined] [2 sheets]
bangiana	Bolivia	La Paz	Santa Bárbara		29 Aug 1902	Williams, R.S.	1561	UC	
bangiana	Bolivia	La Paz	Santa Bárbara		30 Aug 1902	Williams, R.S.	1561	US	
biremis	Colombia	Cauca	La Gallera, Micay Valley	2200-2600	1-Jul-22	Killip	8000	GH	holo
biremis	Colombia	Cauca	P.N. Nat. Munchique	2640	20-Jul-93	Velayos et al.	6865	MA	
bracteata	Venezuela	Trujillo	Boconó, límites del Páramo de Guaramacal	2200-2600	26-Jul-84	Aymard et al.	2952	NY	
bracteata	Venezuela	Trujillo	Boconó, límites del Páramo de Guaramacal	2200-2600	26-Jul-84	Aymard et al.	2952	U	
bracteata	Venezuela	Trujillo	Boconó, Guaramacal, 20 km al E de Boconó	1900-2300	7-Feb-87	Aymard et al.	5240	PORT	US/
bracteata	Venezuela	Mérida	Distrito Rangel, Cuenca de del Qba de la Mitisús, Parque Nacional Sierra Nevada	2750-3100	19-Jun-88	Dorr & Barnett	5611	CAS	[2 sheets]
bracteata	Venezuela	Mérida	Distrito Rangel, Cuenca de del Qba de la Mitisús, Parque Nacional Sierra Nevada	2750-3100	19-Jun-88	Dorr & Barnett	5611	HAM	
bracteata	Venezuela	Mérida	Distrito Rangel, Cuenca de del Qba de la Mitisús, Parque Nacional Sierra Nevada	2750-3100	19-Jun-88	Dorr & Barnett	5611	NY	
bracteata	Venezuela	Trujillo	Boconó, Páramo de Guaramacal	2280	27-Apr-88	Dorr et al.	4940	AAU	
bracteata	Venezuela	Trujillo	Boconó, Páramo de Guaramacal	2280	27-Apr-88	Dorr et al.	4940	NY	
bracteata	Venezuela	Trujillo	Distrito Boconó, Boconó, Montañas de Misisí, carretera vieja Trujillo-Boconó	2000-2400	6-Jul-90	Dorr et al.	7298	CAS	
bracteata	Venezuela	Trujillo	Distrito Boconó, Boconó, Montañas de Misisí, carretera vieja Trujillo-Boconó	2000-2400	6-Jul-90	Dorr et al.	7298	HAM	
bracteata	Venezuela	Trujillo	Distrito Boconó, Boconó, Montañas de Misisí, carretera vieja Trujillo-Boconó	2000-2400	6-Jul-90	Dorr et al.	7298	MO2	
bracteata	Venezuela	Trujillo	Distrito Boconó, Boconó, Montañas de Misisí, carretera vieja Trujillo-Boconó	2000-2400	6-Jul-90	Dorr et al.	7298	NY	
bracteata	Venezuela	Trujillo	Boconó, P.N. Guaramacal, SE of Boconó		2-Nov-98	Dorr et al.	8431	US	US/
bracteata	Venezuela	Trujillo	P.N. Guaramacal, trail from El Cafenol (E of Mosquey) to Fila Los Recostaderos	1790-2200	12-Jun-01	Dorr et al.	8904	PORT	US/

bracteata	Venezuela	Lara	Moran, Humocaro to Buenos Aires	2285-3290	25-Jun-79	Liesner	8142	MO2	
bracteata	Venezuela	Lara	Moran, Humocaro to Buenos Aires	2285-3290	25-Jun-79	Liesner	8142	VEN	
bracteata	Venezuela	Lara	Moran, trail from Humocaro to Buenas Aires (Caserio) below Páramo Los Rosas	2285-3290	25-Jun-79	Liesner et al.	7977	MO2	
bracteata	Venezuela	Trujillo	12 km ESE of Bocono	1600-1900	15-Mar-82	Liesner et al.	13000	MO2	
bracteata	Venezuela	Trujillo	12 km ESE of Bocono	1600-1900	15-Mar-82	Liesner et al.	13000	PORT	US/
bracteata	Venezuela	Trujillo	12 km ESE of Bocono	1600-1900	15-Mar-82	Liesner et al.	13000	U	
bracteata	Venezuela	Trujillo	Boconó, Páramo Guaramacal, 20-21 km beyond jct with hwy NE of Boconó	2640-2700	14-Mar-84	Luteyn & Cotton	9688	NY	
bracteata	Venezuela	Trujillo	Páramo de Guaramacal	2600	25-Apr-85	Ortega	2634	FLAS	
bracteata	Venezuela	Trujillo	Páramo de Guaramacal	2600	25-Apr-85	Ortega	2634	MO	
bracteata	Venezuela	Trujillo	Páramo de Guaramacal	2600	25-Apr-85	Ortega	2634	NY	
bracteata	Venezuela	Trujillo	Páramo de Guaramacal	2600	25-Apr-85	Ortega	2634	VEN	
bracteata	Venezuela	Trujillo	Páramo de Guaramacal	2600	25-Apr-85	Ortega	2634a	PORT	US/
bracteata	Venezuela	Trujillo	Páramo de Guaramacal	2600	25-Apr-85	Ortega	2634b	PORT	US/
bracteata	Venezuela	Trujillo	Mun. de Boconó, camino al Cerro Guaramacál via la laguna de "Los Cedros"		21-Mar-81	Stergios	2550	U	[2 sheets]
bracteata	Venezuela	Trujillo	P.N. Guaramacal, Fila de Agua Fria	2700-2800	1-Jan-96	Stergios & Zambrano	17665	NY	
bracteata	Venezuela	Trujillo	P.N. Guaramacal, Fila de Agua Fria	2700-2800	1-Jan-96	Stergios & Zambrano	17665	US	US/
bracteata	Venezuela	Trujillo	Cerro Guaramacal, Boconó		25-Nov-82	Stergios et al.	4703	PORT	US/
bracteata	Venezuela	Lara	Las Sabanetas above Los Aposentos, W of Humocaro Bajo	2530	5-Feb-44	Steyermark	55287	F2	[2 sheets]
bracteata	Venezuela	Lara	Las Sabanetas above Los Aposentos, W of Humocaro Bajo	2530	5-Feb-44	Steyermark	55287	NY	
bracteata	Venezuela	Lara	Las Sabanetas above Los Aposentos, W of Humocaro Bajo	2530	5-Feb-44	Steyermark	55287	US/	not on loan
bracteata	Venezuela	Trujillo	10-11 km SE de Boconó	2200-2300	26-Feb-71	Steyermark	10483 6	VEN	
bracteata	Venezuela	Lara	Palojosco above Los Apostentos, above Humocaro Bajo	2375-2530	4-Feb-44	Steyermark	55224	F2	holo [2 sheets]
bracteata	Venezuela	Lara	Palojosco above Los Apostentos, above Humocaro Bajo	2375-2530	4-Feb-44	Steyermark	55224	US	iso
bracteata	Venezuela	Trujillo	10-11 km SE de Boconó	2200-2300	26-Feb-71	Steyermark	10483 6	P	
bracteata	Venezuela	Trujillo	10-11 km SE de Boconó	2200-2300	26-Feb-71	Steyermark	10483 6	US	US/
browallioides	Panama	Bocas del Toro	Robalo Trail, N slopes of Cerro Horqueta	1830-2135	5-Aug-47	Allen	4932	G	iso
browallioides	Panama	Bocas del Toro	Robalo Trail, N slopes of Cerro Horqueta	1830-2135	5-Aug-47	Allen	4932	MO	holo

browallioides	Panama	Chiriqui	Cerro Pate de Macho, 8 km NE of Boquete		22-Nov-79	Antonio	2654	COL	
browallioides	Panama	Chiriqui	Cerro Colorado, along mining rd 31.6 km beyond bridge over Río San Felix, 10.6 km beyond turnoff to Escopeta	1690	15-Jul-76	Croat	37155	MO	
browallioides	Panama	Chiriqui	Cerro Pate de Macho, NE of Boquete	2200	23-Nov-79	Croat	48537	MO	
browallioides	Panama	Chiriqui	Boquete, Cerro Pate de Macho	1900-2000	19-Jun-87	Croat	66491	DUKE	
browallioides	Panama	Chiriqui	Boquete, Cerro Pate de Macho	1900-2000	19-Jun-87	Croat	66491	F	
browallioides	Costa Rica	Limon	Talamanca, N flank of Cerro Casma, along Ujarrás-San José Cabécar trail, Cordillera de Talamanca	2250-2270	17-Mar-93	Grayum	10347	INB	
browallioides	Panama	Chiriqui	Río Palo Alto road near peak of Cerro Pate de D396Macho	2196	20-Nov-78	Hammel	5781	MO	
browallioides	Panama	Bocas del Toro	NW of Cerro Pate Macho	2013	10-Feb-79	Hammel	6112	MO	
browallioides	Panama	Chiriqui	Boquete, trail to Cerro Pate Macho	1650-2000	27-Jul-87	McPherson	11321	COL	
browallioides	Panama	Chiriqui	Cerro Pate Macho, summit		5-Jun-83	Schmalzel	1639	MO	
browallioides	Panama	Bocas del Toro	NW ridge of Cerro Pate Macho from summit to Finca Serrano	1200-2100	27-May-81	Sytsma et al.	4900	MO	
bubops	Peru	Amazonas	Condorcanqui, Cordillera del Condor, la pared del "tepui" Cerro Machinaza, cabeceras del Río Comainas, tributario al oeste del Río Cenepa.	1950-2050	21-Jul-94	Beltrán & R. Foster	1197	USM	
bubops	Ecuador	Zamora-Chinchipe	Canton Zamora, sector el Tambo, Estación Científica "San Francisco"	2170	17-Apr-00	Cerna	109	QCNE	
bubops	Ecuador	Zamora-Chinchipe	Carr. Loja-Zamora, Cuenca del río San Francisco, Fundación Arco Iris	2100	27-Feb-00	Cerón et al.	40135	QAP	
bubops	Ecuador	Loja	En una pista que sale de la carretera de Loja a Zamora	2600	28-Sep-95	Garmendia & Paredes	311	QCNE	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	G	[2 sheets]
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	LOJA	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	MO	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	NEU	[3 sheets]
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	NY	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	QCA	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	QCNE	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	S	

bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	SBG	
bubops	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4046	US	[3 sheets]
bubops	Ecuador	Loja	Loja-Zamora rd, km 11	2630	23-Feb-88	Jørgensen	65084	AAU	
bubops	Ecuador	Loja	Loja-Zamora rd, km 11	2630	23-Feb-88	Jørgensen	65084	QCA	
bubops	Ecuador	Loja	Loja-Zamora rd., approx. km 15	2400-2700	23-Apr-88	Madsen	74050	AAU	
bubops	Ecuador	Loja	Loja-Zamora rd., approx. km 15	2400-2700	23-Apr-88	Madsen	74050	LOJA	
bubops	Ecuador	Loja	Loja-Zamora rd., approx. km 15	2400-2700	23-Apr-88	Madsen	74050	QCA	*
bubops	Ecuador	Zamora-Chinchipe	Along new road Loja-Zamora	2500	25-Apr-87	van der werff & Palacios	8986	AAU	iso
bubops	Ecuador	Zamora-Chinchipe	Along new road Loja-Zamora	2500	25-Apr-87	van der werff & Palacios	8986	G	iso
bubops	Ecuador	Zamora-Chinchipe	Along new road Loja-Zamora	2500	25-Apr-87	van der Werff & Palacios	8986	GB	iso
bubops	Ecuador	Zamora-Chinchipe	Along new road Loja-Zamora	2500	25-Apr-87	van der werff & Palacios	8986	NY	holo
bubops	Ecuador	Zamora-Chinchipe	Along new road Loja-Zamora	2500	25-Apr-87	van der werff & Palacios	8986	QCNE	iso
caatingae	Brazil	Bahia	Mun. de Palmeiras, Estrada que sai da BR-242 e da acesso ao Morro do Pai Inácio		7-Jan-97	Grillo & Conceição	217	SPF	
calophylla	Colombia		San Sebastian, Caracas		17-Jan-09	Funcke	311	P	
calophylla	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra	4500	Jan 1843	Funcke	530	BM	isolect
calophylla	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra	4500	Jan 1843	Funcke	530	G	lect
calophylla	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra	4500	Jan 1843	Funcke	530	K3	isolect
calophylla	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra	4500	Jan 1843	Funcke	530	LD	isolect
calophylla	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra			Funcke	530	OXF	isolect
calophylla	Colombia	Magdalena	Ste. Marte, San Sebastian de la Sierra	4500	Jan 1843	Funcke	530	W	isolect
calophylla	Colombia	Magdalena	San Sebastián de Rábago		8-Mar-48	Romero C., R.	901	US	
canoëfolia	Peru	Junín	Chilpes, 8 km S of Vitoc	1420-1700	8-Feb-83	Gentry et al.	40187	HAM	
canoëfolia	Peru	Junín	Tarma, Agua Dulce	2000	5-Mar-48	Woytkowski	35417	F	
canoëfolia	Peru	Junín	Tarma, Agua Dulce	2000	5-Mar-48	Woytkowski	35417	UC	
cinchonifolia	Bolivia					Bang	s.n.	NY	[2 sheets]
cinchonifolia	Bolivia	La Paz	Nor Yungas, Puerto Linares 39 kms hacia Caranavi	1410	10-Mar-79	Beck	416	LPB	
cinchonifolia	Bolivia	La Paz	Nor Yungas, Puerto Linares 39 kms hacia Caranavi	1410	10-Mar-79	Beck	416	MO	

cinchonifolia	Bolivia	La Paz	Nor Yungas, Puerto Linares 39 kms hacia Caranavi	1410	10-Mar-79	Beck	416	U	
cinchonifolia	Bolivia	La Paz	Nor Yungas, Coroico 39 km hacia La Paz	3100	13-Mar-79	Beck	579	LPB	not seen
cinchonifolia	Bolivia	La Paz	Nor Yungas, Coroico 39 km hacia La Paz	3100	13-Mar-79	Beck	579	MO	
cinchonifolia	Bolivia	La Paz	Nor Yungas, Coroico 39 km hacia La Paz	3100	13-Mar-79	Beck	579	NEU	gift from LPB
cinchonifolia	Bolivia	La Paz	Nor Yungas, Caranavi	1200	5-May-89	Beck	17210	LPB	not seen
cinchonifolia	Bolivia	La Paz	Nor Yungas, Caranavi	1200	5-May-89	Beck	17210	NEU	gift from LPB
cinchonifolia	Bolivia	La Paz	Nor Yungas, Caranavi	1200	5-May-89	Beck	17210	U	
cinchonifolia	Bolivia	La Paz	Franz Tamayo, Charanzani	1550	7-Jun-90	Beck & Foster	18579	LPB	not seen
cinchonifolia	Bolivia	La Paz	Franz Tamayo, Charanzani	1550	7-Jun-90	Beck & Foster	18579	NEU	gift from LPB
cinchonifolia	Bolivia	La Paz	Sud Yungas, de Chulumani unos 5 km hacia Irupana, entrando hacia Apa Apa	2000	20-Mar-00	Beck et al.	24780	NY	
cinchonifolia	Bolivia	La Paz	Mapiri Region, San Carolos, an einem Waldwege	850	1-Apr-27	Buchtien	1186	US/	not on loan [M. buchtienii Gilg ined] [2 sheets]
cinchonifolia	Bolivia	La Paz	Hacienda Simaco sobre el camino a Tipuani	1400	1-Feb-20	Buchtien	5639	GH	
cinchonifolia	Bolivia	La Paz	Hacienda Simaco sobre el camino a Tipuani	1400	1-Feb-20	Buchtien	5639	NY	"M. buchtienii Gilg, ined"
cinchonifolia	Bolivia	La Paz	Hacienda Simaco sobre el camino a Tipuani	1400	1-Feb-20	Buchtien	5639	US	
cinchonifolia	Bolivia	La Paz	4 km NE (above) Incahuara, 13.5 km above San Pedro, trail to 12 de Octubre; steep cloud forest with distinct dry season. (bp-ST sensu Holdridge). Transect # 4.	1500-1530	23-Jan-84	Gentry & Solomon	44537	MO3	
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	BM	isolect
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	E	isolect
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	G	not on loan
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	NY	hololect[4 sheets]
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	P	isolect
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	PH	isolect [2 sheets]
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	S	isolect
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	US	isolect; [2 sheets];

									US/; M. tabacifolia Ewan ined iso
cinchonifolia	Bolivia	La Paz	Mapiri	1525	May 1886	Rusby	1173	WIS	isolect
cinchonifolia	Bolivia	La Paz	Valley of the Río Zongo	1400-1600	22-Apr-82	Solomon	7492	MO	[2 sheets]
cinchonifolia	Bolivia	La Paz	Valley of the Río Zongo	1400-1600	22-Apr-82	Solomon	7492	SEL	
cinchonifolia	Bolivia	La Paz	Valley of the Río Zongo	1400-1600	22-Apr-82	Solomon	7492	U	[2 sheets]
cinchonifolia	Bolivia	La Paz	13.0 km al noroeste del camino entre Yolosa y Caranavi, por el camino a Suapi. Al lado del Ri 4o Khusillani (ca. 1 km antes de la comunidad Khusillani)	1500	27-May-88	Solomon	9275	MO	not seen/not on loan
cinchonifolia	Bolivia	La Paz	Nor Yungas, 13.7 km NW of San Pedro	1500	12-Feb-83	Solomon	9501	MO	[2 sheets]
cinchonifolia	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992b	F	
cinchonifolia	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992b	G	[G-BOIS]
cinchonifolia	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992b	GH	
cinchonifolia	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992b	K	
cochabambensis	Bolivia	La Paz	Nor Yungas, Chuspipata	2980	21-Jul-90	Beck	17705	LPB	not seen
cochabambensis	Bolivia	La Paz	Nor Yungas, Chuspipata	2980	21-Jul-90	Beck	17705	NEU	gift from LPB
cochabambensis	Bolivia	La Paz	Nor Yungas, Chuspipata	2980	21-Jul-90	Beck	17705	U	
cochabambensis	Bolivia	La Paz	Nor Yungas, Cotapata	3000	11-Sep-94	Beck	21458	LPB	not seen
cochabambensis	Bolivia	La Paz	Nor Yungas, Cotapata	3000	11-Sep-94	Beck	21458	NEU	gift from LPB
cochabambensis	Bolivia	La Paz	Nor Yungas, near Chuspipata	2800	13-Jan-84	Gentry et al.	44200	LPB	
cochabambensis	Bolivia	La Paz	Nor Yungas, near Chuspipata	2800	13-Jan-84	Gentry et al.	44200	MO	
cochabambensis	Bolivia	La Paz	Nor Yungas, near Chuspipata	2800	13-Jan-84	Gentry et al.	44200	NY	
cochabambensis	Bolivia	La Paz	Nor Yungas, near Chuspipata	2800	13-Jan-84	Gentry et al.	44200	U	[2 sheets]
cochabambensis	Bolivia	La Paz	Inquisivi Prov., Cerro Negro Khota	3000	14-Jul-90	Lewis	37463	COL	
cochabambensis	Bolivia	La Paz	Inquisivi Prov., Cerro Negro Khota	3000	14-Jul-90	Lewis	37463	MO	MO (not on loan)
cochabambensis	Bolivia	La Paz	Inquisivi Prov., Cerro Negro Khota	3000	14-Jul-90	Lewis	37463	NEU	
cochabambensis	Bolivia	La Paz	Inquisivi Prov., Cerro Negro Khota	3000	14-Jul-90	Lewis	37463	U	
cochabambensis	Bolivia		Above Coroico	1830-2135	Dec 1865	Pearce	s.n.	K	[2 sheets]
cochabambensis	Bolivia	Cochabamba	Chapare, Corani Pampa	2520	9-Dec-95	Ritter & Wood	2700	LPB	
cochabambensis	Bolivia	Cochabamba	Chapare, Corani Pampa	2520	9-Dec-95	Ritter & Wood	2700	MO3	

cochabambensis	Bolivia	Cochabamba	Chapare, Corani Pampa	2520	9-Dec-95	Ritter & Wood	2700	W	
cochabambensis	Bolivia	La Paz	Near Yungas	4000 ft	0 1885	Rusby	1172	NY	[iso M. gilgiana Rusby ined] [2 sheets]
cochabambensis	Bolivia	La Paz	Nor Yungas, 2.6 km below Chuspipata	2750	14-Jan-83	Solomon	9226	MO	[2 sheets]
cochabambensis	Bolivia	La Paz	Nor Yungas, 2.6 km below Chuspipata	2750	14-Jan-83	Solomon	9226	SEL	[2 sheets]
cochabambensis	Bolivia	La Paz	Nor Yungas, 2.6 km below Chuspipata	2750	14-Jan-83	Solomon	9226	U	[2 sheets]
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	BM	iso
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	E	iso
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	G	iso (G-DEL)
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	MO	iso
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	NY	lect
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	S	iso
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	U	iso
cochabambensis	Bolivia	Cochabamba	Incachaca	2300	30-Jan-29	Steinbach	8992	Z	iso
densiflora	Colombia	Cauca	P.N. Nat. Munchique, El Tambo	2600	22-Jul-93	Barbosa et al.	8532	COL	
densiflora	Colombia	Cauca	Páramo de las Lapas	3200	17-Sep-58	Barclay, H.G.	6087	COL	
densiflora	Colombia	Cauca	Páramo de las Lapas	3200	17-Sep-58	Barclay, H.G.	6087	NO	
densiflora	Ecuador	Carchi	Cerro Golondrinas area, access via Chamorro property above El Carmes	2690	24-Jul-93	Boyle & Hibbs	2333	MO3	
densiflora	Ecuador	Carchi	Cerro Golondrinas, crest of N ridge	3000-3060	24-Jul-94	Boyle et al.	3394	QCNE	
densiflora	Ecuador	Carchi	Cerro Golondrinas, crest of N ridge	3000-3060	24-Jul-94	Boyle et al.	3394	U	
densiflora	Colombia	Tolima	Santa Isabel, El Ocherál	3150	15-Feb-80	Díaz P. & Jaramillo M.	2140	COL	
densiflora	Colombia	Cauca	Páramo cerca a Gabriel López, arriba de Totoró Cauca	3200	15-Jan-68	Espinal & Ramos	3424	CUVC	
densiflora	Colombia	Cauca	Páramo cerca a Gabriel López, arriba de Totoró Cauca	3200	15-Jan-68	Espinal & Ramos	3424	MO	
densiflora	Colombia	Cauca	Páramo cerca a Gabriel López, arriba de Totoró Cauca	3200	15-Jan-68	Espinal & Ramos	3424	U	[2 sheets]
densiflora	Colombia	Cauca	Popayán, Mountains of Pitayo			Hartweg	1241	K	holo [2 sheets]
densiflora	Colombia	Cauca	Mendez, NE of Silvia	3000-3100	21-Oct-46	Haught	5105	US/	not on loan
densiflora	Colombia	Cauca	Páramo de Moras	3000-3500	29 Oct 1882	Lehmann	2087	BM	
densiflora	Colombia	Cauca	Páramo de Moras	3000-3500	29 Oct 1882	Lehmann	2087	G	[2 sheets]

densiflora	Colombia	Cauca	Páramo de Moras	3000-3500	29 Oct 1882	Lehmann	2087	US/	not on loan
densiflora	Colombia	—	—	—	—	Lobb	20	K	
densiflora	Ecuador	Carchi	Cresta del Cerro Golondrinas Hembra	3000	21-Aug-94	Palacios	12515	MO3	
densiflora	Ecuador	Carchi	Cresta del Cerro Golondrinas Hembra	3000	21-Aug-94	Palacios	12515	QCNE	
densiflora	Ecuador	Carchi	Cresta del Cerro Golondrinas Hembra	3000	21-Aug-94	Palacios	12515	U	
densiflora	Colombia	Cauca	Paletará to Calaguala	3000-3200	17-Jun-22	Pennell	7109	GH	[2 sheets]
densiflora	Colombia	—	—	—	19-Jan-09	Purdie	s.n.	BM	
densiflora	Colombia	—	—	—	—	Purdie	s.n.	K	
densiflora	Colombia	—	—	—	—	Purdie	s.n.	K3	[2 sheets]
densiflora	Colombia	—	—	—	—	Purdie	s.n.	P	
densiflora	Colombia	Cauca	Propre pagum El Tambo	3060	25-Sep-39	von Sneider	2523	S	
densiflora	Colombia	Tolima	16 km W of Fresno on rd to Manizales	—	17-Oct-72	Weaver	2644	GH	
densiflora	Colombia	Tolima	16 km W of Fresno on rd to Manizales	—	17-Oct-72	Weaver	2644	MO	[2 sheets]
densiflora	Colombia	Tolima	16 km W of Fresno on rd to Manizales	—	17-Oct-72	Weaver	2644	NY	[2 sheets]
densiflora/glabra	Colombia	Cauca	Popayán	1700	13-May-49	Fernández-P.	105	COL	
dillonii	Peru	Amazonas	Luya, Camporredondo, Tullany, Pajaro Tigre	2200	4-Dec-96	Campos & Campos	3103	NEU	
dillonii	Peru	Amazonas	Luya, Camporredondo, Tullany, Pajaro Tigre	2200	4-Dec-96	Campos & Campos	3103	U2	
dillonii	Peru	Amazonas	Luya, Camporredondo, Localidad Condorpuñuna - Las Aguas	1800-1950	28-Mar-97	Campos et al.	3685	NEU	
dillonii	Peru	Amazonas	Luya, Camporredondo, Localidad Condorpuñuna - Las Aguas	1800-1950	28-Mar-97	Campos et al.	3685	U2	[2 sheets]
dillonii	Peru	San Martín	Huallaga, Sapos, alrededores de Monumentos Historicos de Buenos Aires (Zarumilla)	1440	11-Aug-00	Quipuscoa et al.	2044	F2	
dillonii	Peru	San Martín	Huallaga, Sapos, alrededores de Monumentos Historicos de Buenos Aires (Zarumilla)	1440	11-Aug-00	Quipuscoa et al.	2044	HUT2	
dillonii	Peru	Amazonas	Amazonas, Dist. Vista Alegre, Puente sobre el Río Salas	1525	30-Jun-98	Sánchez Vega et al.	9572	CPUN	not on loan
dillonii	Peru	Amazonas	Amazonas, Dist. Vista Alegre, Puente sobre el Río Salas	1525	30-Jun-98	Sánchez Vega et al.	9572	F2	
dillonii	Peru	Amazonas	Amazonas, Dist. Vista Alegre, Puente sobre el Río Salas	1525	30-Jun-98	Sánchez Vega et al.	9572	NEU	
dillonii	Peru	Amazonas	Amazonas, Dist. Vista Alegre, Puente sobre el Río Salas	1525	30-Jun-98	Sánchez Vega et al.	9572	HAO	
dillonii	Peru	Amazonas	Amazonas, Dist. Vista Alegre, Puente sobre el Río Salas	1525	30-Jun-98	Sánchez Vega et al.	9572	U	
dillonii	Peru	Amazonas	Mendoza	1600	29-Jul-63	Woytkowski	8071	GH	
dillonii	Peru	Amazonas	Mendoza	1600	29-Jul-63	Woytkowski	8071	MO	
dillonii	Peru	Amazonas	Mendoza	1600	29-Jul-63	Woytkowski	8071	US/	not on loan
domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18199	US	

domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18202	US	
domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18205	US	
domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18214	US/	not on loan
domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18215	GH	
domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18215	S	
domingensis	Dominican Rep	La Vega	Loma Campana	1036	31-Dec-47	Allard	18215 A	US	
domingensis	Dominican Rep	Santo Domingo	Ciudad Trujillo	0-25	31-Dec-47	Allard	18215 B	US	
domingensis	Dominican Rep	Santiago	Mun. Franco Bidó, Paraje Cerro Prieto, PN Armando Bermúdez	1670	19-Feb-99	Clase & Peguero	591	JBSD	not seen
domingensis	Dominican Rep	Santo Domingo	Loma La Campana	1200	11-Feb-29	Ekman	H1150 4	K	iso
domingensis	Dominican Rep	Santo Domingo	Loma La Campana	1200	11-Feb-29	Ekman	H1150 4	S	holo
domingensis	Dominican Rep	Santo Domingo	Loma La Campana	1200	11-Feb-29	Ekman	H1150 4	US	iso [2 sheets]
domingensis	Dominican Rep	La Vega	Constanza, al sureste del poblado de Pinalito	1480	7-Feb-86	García & Peláez	1030	JBSD	not seen
domingensis	Dominican Rep	La Vega	Constanza, al sureste del poblado de Pinalito	1480	7-Feb-86	García & Peláez	1030	NY	
domingensis	Dominican Rep	La Vega	SE de Constanza	1580	6-Apr-86	García & Pimentel	1143	JBSD	not seen
domingensis	Dominican Rep	La Vega	SE de Constanza	1580	6-Apr-86	García & Pimentel	1143	NY	
domingensis	Dominican Rep	La Vega	SE de Constanza	1580	6-Apr-86	García & Pimentel	1143	US	
domingensis	Dominican Rep	La Vega	Altos de Casabito	1300	13-Dec-95	García et al.	6091	F	
domingensis	Dominican Rep	La Vega	Altos de Casabito	1300	13-Dec-95	García et al.	6091	JBSD	not seen
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde		29-May-92	García et al.	46148	JBSD	not seen
domingensis	Dominican Rep	La Vega	Constanza to Bonao	1400	17-Jul-55	Jiménez	3024	US	
domingensis	Dominican Rep	San Cristóbal	1 km al Norte de la confluencia del Río Mana y Arroyo Blanco	1050	9-Mar-94	Jiménez et al	1162	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Batoruco, near the village of El Cachote	1160	6-Nov-01	Kolterman	s.n.	JBSD	
domingensis	Dominican Rep	-	Jarabacoa, Loma de la Sal	1100	24-May-63	Liogier		6P	[[check out to see if correct]]
domingensis	Dominican Rep	-	Jarabacoa, Loma de la Sal	1100	24-May-68	Liogier	11410	GH	[[check out to see if correct]]
domingensis	Dominican Rep	-	Jarabacoa, Loma de la Sal	1100	24-May-68	Liogier	11410	NY	
domingensis	Dominican Rep	-	La Descubierta	1300	1-May-71	Liogier	18053	NY	
domingensis	Dominican Rep	-	Alto de Casabito, Bonao	1300	18-Jun-75	Liogier	23010	JBSD	not seen

domingensis	Dominican Rep		Jarabacoa, Loma de la Sal	1400	16-Jun-75	Liogier & Liogier	23637	JBSD	not seen
domingensis	Dominican Rep		Alto de Casabito, Bonao	1300	12-May-77	Liogier & Liogier	26632	JBSD	not seen
domingensis	Dominican Rep	La Vega	Road from Bonao to Constanza, Alta de Casabito, Reserva Ebano Verde	1250	24-May-96	Maas et al.	8395	JBSD	not seen
domingensis	Dominican Rep	La Vega	Road from Bonao to Constanza, Alta de Casabito, Reserva Ebano Verde	1250	24-May-96	Maas et al.	8395	NY	
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, near the village of El Cachote	1160	6-Nov-01	Peguero	2803	JBSD	
domingensis	Dominican Rep	Peravia	Loma del Rancho SE de San José de Ocoa	1300-1400	19-Aug-87	Pimentel & García	805	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, en Loma El Montazo	960	11-Sep-91	Santana et al.	840	JBSD	not seen
domingensis	Dominican Rep	Barahona	Loma Pie Polo	960	13-Sep-91	Santana et al.	887	JBSD	not seen
domingensis	Dominican Rep	Mons. Nouel	parte Noreste de la lima el Pichón	1355	7-May-98	Veloz et al.	1355	JBSD	not seen
domingensis	Dominican Rep	Peravia	15 km N desde el Parque Central y 8-10 km desde el cruce de Los arroyos en el camino a Carmona		21-Jul-82	Zanoni et al.	21826	JBSD	not seen
domingensis	Dominican Rep	La Vega	Sobre Loma de La Golondrina	1400-1500	23-May-86	Zanoni et al.	36464	JBSD	not seen
domingensis	Dominican Rep	La Vega	Sobre Loma de La Golondrina	1400-1500	23-May-86	Zanoni et al.	36464	NY	
domingensis	Dominican Rep	La Vega	Sobre Loma de La Golondrina	1400-1500	23-May-86	Zanoni et al.	36464	U	[2 sheets]
domingensis	Dominican Rep	La Vega	5 km SW de Jarabacoa, sobre El Mogote	1200-1521	3-Jul-86	Zanoni et al.	36890	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Loma "Pie Pol" de La Guasára de Barahona	1250	25-Mar-87	Zanoni et al.	38655	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Loma "Pie Pol" de La Guasára de Barahona	1250	25-Mar-87	Zanoni et al.	38655	NY	
domingensis	Dominican Rep	Peravia	Loma del Rancho, al SE de San José de Ocoa	1350-1400	14-Aug-87	Zanoni et al.	40275	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Lima Pie de Pol	1400	19-May-88	Zanoni et al.	41117	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Aguas Blancas-El Platón - La Cienaga	1000	24-Mar-90	Zanoni et al.	44171	JBSD	not seen
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Aguas Blancas-El Platón - La Cienaga	1000	24-Mar-90	Zanoni et al.	44171	MO	
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Aguas Blancas-El Platón - La Cienaga	1000	24-Mar-90	Zanoni et al.	44171	NY	[2 sheets]
domingensis	Dominican Rep	Barahona	Sierra de Bahoruco, Aguas Blancas-El Platón - La Cienaga	1000	24-Mar-90	Zanoni et al.	44171	U	
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1200-1300	6-May-92	Zanoni et al.	45764	B	
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1200-1300	6-May-92	Zanoni et al.	45764	JBSD	not seen
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1350-1440	27-May-92	Zanoni et al.	45941	JBSD	not seen
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1350-1440	27-May-92	Zanoni et al.	45941	NY	
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1200-1300	9-Jun-92	Zanoni et al.	46266	JBSD	not seen
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1350-1400	22-Jun-92	Zanoni et al.	46482	B	
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1350-1400	22-Jun-92	Zanoni et al.	46482	JBSD	not seen
domingensis	Dominican Rep	La Vega	Res. Ci. Ebano Verde	1450	25-Jun-92	Zanoni et al.	46741	JBSD	not seen

duquei	Colombia	Valle	Los Farallones, Alto del Buey	3300-3450	13-Oct-44	Cuatrecasas	18077	F	
duquei	Colombia	Valle	Los Farallones, Alto del Buey	3300-3450	13-Oct-44	Cuatrecasas	18077	S2	
duquei	Colombia	Valle	Los Farallones, Alto del Buey	3300-3450	13-Oct-44	Cuatrecasas	18077	US/	not on loan
duquei	Colombia	Valle	Los Farallones, Quebrada de Las Nieves	3000-3120	31-Jul-46	Cuatrecasas	21824	COL	iso-neotype!
duquei	Colombia	Valle	Los Farallones, Quebrada de Las Nieves	3000-3120	31-Jul-46	Cuatrecasas	21824	F	iso-neotype!
duquei	Colombia	Valle	Los Farallones, Quebrada de Las Nieves	3000-3120	31-Jul-46	Cuatrecasas	21824	US	neotype!
duquei	Colombia	Valle	Corregimiento Santa Lucia, El Crucero, Morro Bello	3200	5-Nov-87	Devia & Prado	2052	MO3	
duquei	Colombia	Valle	Tuluá, Corr. Santa Lucía, El Crucero, Morro Bello	3200	5-Nov-87	Prado	2052	COL	
duquei	Colombia	Valle	Tuluá, Corr. Santa Lucía, El Crucero, Morro Bello	3200	5-Nov-87	Prado	2052	MO	
duquei	Colombia	Valle	Tuluá, Corr. Santa Lucía, El Crucero, Morro Bello	3200	5-Nov-87	Prado	2052	U	
elix	Ecuador	Azuay	Hwy Cuenca-Cola de San Pablo	2540	14-Feb-77	Boeke & Loyola	988	AAU	iso
elix	Ecuador	Azuay	Hwy Cuenca-Cola de San Pablo	2540	14-Feb-77	Boeke & Loyola	988	NY	holo
elix	Ecuador	Azuay	Hwy Cuenca-Cola de San Pablo	2540	14-Feb-77	Boeke & Loyola	988	QCA	* iso
elix	Ecuador	Azuay	Sevilla de Oro	2440-2745	27-Jul-45	Camp	4325	NO	
elix	Ecuador	Azuay	Sevilla de Oro	2440-2745	27-Jul-45	Camp	4325	S	
elix	Ecuador	Azuay	Sevilla de Oro	2440-2745	27-Jul-45	Camp	4325	U	
elix	Ecuador	Morona-Santiago	SW of military checkpoint in Limón	2340	27-Oct-88	Dorr & Barnett	5910	HAM	
elix	Ecuador	Morona-Santiago	SW of military checkpoint in Limón	2340	27-Oct-88	Dorr & Barnett	5910	QCA	*
elix	Ecuador	Morona-Santiago	SW of military checkpoint in Limón	2340	27-Oct-88	Dorr & Barnett	5910	QCNE	
elix	Ecuador	Morona-Santiago	Road Gualaceo-Limón, Loma de Puerco	2500	11-Nov-88	Harling	25814a	GB	
elix	Ecuador	Morona-Santiago	Road Gualaceo-Limón, Loma de Puerco	2500	11-Nov-88	Harling	25814b	GB	
elix	Ecuador	Cañar	Above Rivera on road to Pindilig	2800	9-Mar-85	Harling & Andersson	23031	GB	
elix	Ecuador	Cañar	Above Rivera on road to Pindilig	2800	9-Mar-85	Harling & Andersson	23031	MO3	
elix	Ecuador	Cañar	Above Rivera on road to Pindilig	2800	9-Mar-85	Harling & Andersson	23031	QCA	
elix	Ecuador	Cañar	Pass on road Azogues-Taday	3100	30-Mar-85	Harling & Andersson	23442	GB	
elix	Ecuador	Cañar	Pass on road Azogues-Taday	3100	30-Mar-85	Harling & Andersson	23442	MO3	
elix	Ecuador	Cañar	Pass on road Azogues-Taday	3100	30-Mar-85	Harling & Andersson	23442	QCA	*
elix	Ecuador	Azuay	Carr. Cuenca-Sevilla de Oro	2490	8-Aug-86	Jaramillo	8927	AAU	
elix	Ecuador	Azuay	Carr. Cuenca-Sevilla de Oro	2490	8-Aug-86	Jaramillo	8927	QCA	
elix	Ecuador	Azuay	Km 29 Paute-Amaluza road	2550	7-Aug-86	Jørgensen	61429	AAU	[2 sheets]

elix	Ecuador	Azuay	Km 29 Paute-Amaluza road	2550	7-Aug-86	Jørgensen	61429	QCNE	*
elix	Ecuador	Morona-Santiago	20 km NW of Indanza, between Cerro Cruzado and Zapote	7000 ft	2-Oct-44	Jorgensen, H.	49	NY	
elix	Ecuador	Morona-Santiago	Along Río Tintas, between Campanas and Arenillas	2195	13-Jul-43	Steyermark	53548	F	[2 sheets]
elix	Ecuador	Morona-Santiago	Along Río Tintas, between Campanas and Arenillas	2195	13-Jul-43	Steyermark	53548	US/	not on loan
ericii	Peru	Cajamarca	San Ignacio, San José de Lourdes, Estrella del Oriente, Cerro del Oso	1600-1700	6-Sep-97	Campos & Diaz	4410	NEU	
ericii	Peru	Cajamarca	San Ignacio, San José de Lourdes, Estrella del Oriente, Cerro del Oso	1600-1700	6-Sep-97	Campos & Diaz	4410	U2	[2 sheets]
ericii	Peru	Cajamarca	San Ignacio, Huarango, Localidad Romerillo, Cordillera entre Romerillo y Nuevo Mundo	2300	27-Jul-97	Campos et al.	4296	MO	holo
ericii	Peru	Piura	Cordillera de San José, páramo	1700	23-Sep-61	Friedberg	692	USM	
ericii	Peru	Cajamarca	San Ignacio, San José de Lourdes	1900-2100	10-Jun-98	Weigend et al.	98/500	M	
ewaniana	Venezuela	Trujillo	Guirisoy, hacia Peña Blanca	3300	1-Aug-58	Aristeguieta & Medina	3590	NO	iso
ewaniana	Venezuela	Trujillo	Guirisoy, hacia Peña Blanca	3300	1-Aug-58	Aristeguieta & Medina	3590	NY	iso
ewaniana	Venezuela	Trujillo	Guirisoy, hacia Peña Blanca	3300	1-Aug-58	Aristeguieta & Medina	3590	US	iso
ewaniana	Venezuela	Trujillo	Guirisoy, hacia Peña Blanca	3300	1-Aug-58	Aristeguieta & Medina	3590	VEN	holo
ewaniana	Venezuela	Táchira	La Grita, Páramo del Rosal	3150	8-Oct-65	Bernardi	10905	F	at NY
ewaniana	Venezuela	Táchira	La Grita, Páramo del Rosal	3150	8-Oct-65	Bernardi	10905	MO	
ewaniana	Venezuela	Táchira	La Grita, Páramo del Rosal	2800-3200	8-Oct-65	Bernardi	10905	NY	
ewaniana	Venezuela	Táchira	La Grita, Páramo del Rosal	2800-3200	8-Oct-65	Bernardi	10905	US	
fortisiana	Peru	Puno	Sandia, St. Domingo area	1550	10-Apr-40	McCarroll	128	NY	
fortisiana	Peru	Puno	Sandia, near Sagrario	1000-1300	26-May-42	Metcalf	30629	G	
fortisiana	Peru	Puno	Sandia, near Sagrario	1000-1300	26-May-42	Metcalf	30629	GH	
fortisiana	Peru	Puno	Sandia, near Sagrario	1000-1300	26-May-42	Metcalf	30629	MO	
fortisiana	Peru	Puno	Sandia, near Sagrario	1000-1300	26-May-42	Metcalf	30629	UC	
fortisiana	Peru	Puno	Sandia, near Sagrario	1000-1300	26-May-42	Metcalf	30629	US	
fosteri	Peru	Pasco	Oxapampa, Pichis Valley, San Matias Ridge	500-900	8-Sep-82	Foster, R.	8610	HAM	
fosteri	Peru	Pasco	Oxapampa, Pichis Valley, San Matias Ridge	500-900	8-Sep-82	Foster, R.	8610	MO3	
fosteri	Peru	Pasco	Oxapampa, Pichis Valley, San Matias Ridge	500-900	8-Sep-82	Foster, R.	8610	USM	
fosteri	Peru	Pasco	Oxapampa, rd between Oxapampa and Villa Rica, km 7 SE from Miraflores crest, 75 20 W, 10 37 S	2100-2400	11-Oct-82	Foster, R.	9114	HAM	

fosteri	Peru	Pasco	Oxapampa, rd between Oxapampa and Villa Rica, km 7 SE from Miraflores crest, 75 20 W, 10 37 S	2100-2400	11-Oct-82	Foster, R.	9114	MO3	
fosteri	Peru	Pasco	Oxapampa, rd between Oxapampa and Villa Rica, km 7 SE from Miraflores crest, 75 20 W, 10 37 S	2100-2400	11-Oct-82	Foster, R.	9114	USM	
fosteri	Peru	Pasco	Oxapampa, Río San Alberto, Abra Esperanza	2400-2700	28-Jun-85	Foster, R. et al.	10262	USM	
fosteri	Peru	Pasco	Cordillera Yanachaga, new road in construction from Oxapampa to Villa Rica, 7-9 km E of main road		1-Mar-82	Gentry & D.N. Smith	35842	MO3	
fosteri	Peru	Pasco	Cordillera Yanachaga, new road in construction from Oxapampa to Villa Rica, 7-9 km E of main road		1-Mar-82	Gentry & D.N. Smith	35842	USM	
fosteri	Peru	Pasco	Oxapampa, road to "Pajonal" (Antenna of Oxapampa) and on to Villa Rica	2515	17-Sep-01	Weigend et al.	5777	BSB	
gattaca	Ecuador	Pichincha	Parroquia Pacto-Gualea, sector del Río Pishashi	1030-1070	23-Jul-94	Aimancaña & Guzmán	156	QAP	
gattaca	Ecuador	Pichincha	Salvador, between San Juan & Chiriboga	2600	28-Oct-55	Asplund	18200	S	
gattaca	Ecuador	Pichincha	Carr. Quito-Las Palmas-Palmeras	2800	29-Nov-86	Freire, A.	456	AAU	
gattaca	Ecuador	Pichincha	Carr. Quito-Las Palmas-Palmeras	2800	29-Nov-86	Freire, A.	456	QCA	*
gattaca	Ecuador	Pichincha	67 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road		26-Feb-02	Grant, J.R. & Torres	4209	NEU	
gattaca	Ecuador	Pichincha	67 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road		26-Feb-02	Grant, J.R. & Torres	4209	NY	
gattaca	Ecuador	Pichincha	67 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road		26-Feb-02	Grant, J.R. & Torres	4209	US	[2 sheets]
gattaca	Ecuador	Sucumbios	Santa Bárbara de Sucumbios		10-Feb-59	Harling	4120	S	Sucumbios or Napo?
gattaca	Ecuador	Pichincha	Vía San Juan-Chiriboga-Empalme	2550	10-Sep-77	Jaramillo	22	AAU	iso
gattaca	Ecuador	Pichincha	Vía San Juan-Chiriboga-Empalme	2550	10-Sep-77	Jaramillo	22	MO3	iso
gattaca	Ecuador	Pichincha	Vía San Juan-Chiriboga-Empalme	2550	10-Sep-77	Jaramillo	22	NY	holo
gattaca	Ecuador	Pichincha	Vía San Juan-Chiriboga-Empalme	2550	10-Sep-77	Jaramillo	22	QCA	iso
gattaca	Ecuador	Pichincha	Vía San Juan-Chiriboga, km 33 desde Quito	2700	2-Apr-76	Oldeman	3449	NY	
gattaca	Ecuador	Pichincha	Vía San Juan-Chiriboga, km 33 desde Quito	2700	2-Apr-76	Oldeman	3449	QCA	*
gattaca	Ecuador	Napo	Valle alto del Río Quijos, 5 km al Sur de Cuyuja	2850	16-Jun-98	Vargas, H. et al.	1851	CHRB	
gattaca	Ecuador	Napo	Valle alto del Río Quijos, 5 km al Sur de Cuyuja	2850	16-Jun-98	Vargas, H. et al.	1851	MO	loan at Rutgers
gattaca	Ecuador	Napo	Valle alto del Río Quijos, 5 km al Sur de Cuyuja	2850	16-Jun-98	Vargas, H. et al.	1851	QCNE	*
gattaca	Ecuador	Pichincha	Quito, Parroquia Nanegal, Montañas de Maquipucuna	2100-2200	9-Jul-91	Webster et al.	28902	DAV2	
gattaca	Ecuador	Pichincha	Quito, Parroquia Nanegal, Montañas de Maquipucuna	2100-2200	9-Jul-91	Webster et al.	28902	MICH	
gattaca	Ecuador	Pichincha	Quito, Parroquia Nanegal, Montañas de Maquipucuna	2100-2200	9-Jul-91	Webster et al.	28902	MO	

gattaca	Ecuador	Pichincha	Quito, Parroquia Nanegal, Montañas de Maquipucuna	2100-2200	9-Jul-91	Webster et al.	28902	QCNE	
gattaca	Ecuador	Pichincha	Quito, Parroquia Nanegal, Montañas de Maquipucuna	2100-2200	9-Jul-91	Webster et al.	28902	TEX	
gaudialis	Colombia	Putumayo	Sibundoy	2220-2270	1-Feb-49	Schultes	10415	GH	[2 sheets]
gaudialis	Colombia	Putumayo	Sibundoy	2220-2270	1-Feb-49	Schultes	10415	MO3	
gaudialis	Colombia	Putumayo	Sibundoy	2220-2270	1-Feb-49	Schultes	10415	NY	
gaudialis	Colombia	Nariño	El Encano	2800	27-Oct-72	Weaver	2650	AAU	iso [2 sheets]
gaudialis	Colombia	Nariño	El Encano	2800	27-Oct-72	Weaver	2650	BM	iso
gaudialis	Colombia	Nariño	El Encano	2800	27-Oct-72	Weaver	2650	GH	holo [2 sheets]
gaudialis	Colombia	Nariño	El Encano	2800	27-Oct-72	Weaver	2650	MO	iso
glabra	Colombia	Cundinamarca	Usaguen, près de Bogotá		2-Jul-09	Apollinaire	s.n.	L	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate			Ariste-Joseph	A131	US	
glabra	Colombia	Cundinamarca	E of Guasca on road to Gachetá	3200	9-Feb-72	Barclay, A.S. et al.	3161	COL	
glabra	Colombia	Cundinamarca	E of Guasca on road to Gachetá	3200	9-Feb-72	Barclay, A.S. et al.	3161	NA	
glabra	Colombia	Cundinamarca	E of Guasca on road to Gachetá	3200	9-Feb-72	Barclay, A.S. et al.	3161	US/	not on loan
glabra	Colombia	Cundinamarca	El Boqueron de Chipaque		7-Dec-57	Barclay, H.G.	4500	COL	
glabra	Colombia	Cundinamarca	El Boqueron de Chipaque		7-Dec-57	Barclay, H.G.	4500	MO3	
glabra	Colombia	Cundinamarca	Macizo Bogotano, Páramo de Choachí	3300	18-Jun-59	Barclay, H.G.	7728	COL	iso (G-DC) [bogotana]
glabra	Colombia	Cundinamarca	Macizo Bogotano, Páramo de Choachí	3300	18-Jun-59	Barclay, H.G.	7728	NO	iso [bogotana]
glabra	Colombia	Cundinamarca	Bogotá, El Chico		1-Dec-46	Black	46-688	GH	
glabra	Colombia	Cundinamarca	Bogotá, El Chico		1-Dec-46	Black	46-688	U	
glabra	Colombia	Cundinamarca	Páramo de Choachí	3100		Calle A.	5	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3150	29-Dec-71	Cleef	370	K	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3150	29-Dec-71	Cleef	370	MO	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3150	29-Dec-71	Cleef	370	NY	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3150	29-Dec-71	Cleef	370	US	
glabra	Colombia	Cundinamarca	Páramo de Palacio, flanca W, km 8 de la carretera	3230	12-May-72	Cleef	1973	U	
glabra	Colombia	Cundinamarca	Bogotá	2900	13-Apr-32	Cuatrecasas	2732	MA	[2 sheets]
glabra	Colombia	Cundinamarca	Macizo de Bogotá, entre El Delirio y E. Guadalupe	2900-3220	29-May-39	Cuatrecasas	5170	US	
glabra	Colombia	Cundinamarca	Macizo de Bogotá, Sierra de Siete Picos	2900-3100	29-Jun-39	Cuatrecasas	5672	US	

glabra	Colombia	Cundinamarca	Macizo de Bogotá, Sierra de Siete Picos	2900-3100	28-Jun-39	Cuatrecasas	5672	COL	
glabra	Colombia	Cundinamarca	Bogotá [Andes de]	3000	1-May-37	Daniel	1450	F	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	2950	1-Mar-16	Dawe	11	K	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	2950	1-Mar-16	Dawe	11	US	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3202	5-May-72	Duncan	1901	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3202	5-May-72	Duncan	1901	MICH	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3202	5-May-72	Duncan	1901	UC	
glabra	Colombia	Cundinamarca	Subachoque, en el camino del radar a Supata	3350	4-Nov-83	Franco & Aguire	2054	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3300	11-Mar-65	Garay & Schopf	105	GH	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3300	11-Mar-65	Garay & Schopf	105	US	
glabra	Colombia	Cundinamarca	Albán, hacienda Gualibá a la María	2250-2350	17-Jul-60	García-Barriga	17297	COL	
glabra	Colombia	Cundinamarca	Chocontá, El Sisga	2700-2800	21-Feb-62	García-Barriga	17416	COL	
glabra	Colombia	Cundinamarca	Chocontá, El Sisga	2700-2800	21-Feb-62	García-Barriga	17416	NY	
glabra	Colombia	Cundinamarca	Chocontá, El Sisga	2700-2800	21-Feb-62	García-Barriga	17416	US	
glabra	Colombia	Cundinamarca	Sopó, carr. a Guasca	2850	25-May-76	García-Barriga	20976	COL	
glabra	Colombia	Cundinamarca	Sopó, carr. a Guasca	2850	25-May-76	García-Barriga	20976	US	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3300	17-Feb-51	García-Barriga & Schultes	13518	GH	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3300	17-Feb-51	García-Barriga & Schultes	13518	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3300	17-Feb-51	García-Barriga & Schultes	13518	NY	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3300	17-Feb-51	García-Barriga & Schultes	13518	US	
glabra	Colombia	Cundinamarca	Bogotá		19-Jan-09	Goudot	1	G	lect [polyantha]
glabra	Colombia	Cundinamarca	Bogotá, Peña		19-Jan-09	Goudot	1	G	[G-BOISS] iso [polyantha]
glabra	Colombia	Cundinamarca	Santa Fé de Bogotá; nemoribus humidis Bogotensis		19-Jan-09	Goudot	1	GOET	iso [polyantha]
glabra	Colombia	Cundinamarca	Bogotá		19-Jan-09	Goudot	1	K	iso [polyantha]
glabra	Colombia	Cundinamarca	Bogotá		19-Jan-09	Goudot	1	P	lect [polyantha] [2 sheets]

glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	2900	29-Sep-46	Haught	5041	NO	
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	2900	29-Sep-46	Haught	5041	US	
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3100	20-Mar-47	Haught	5600	US	
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3100	20-Mar-47	Haught	5600	WIS	
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3300	27-Apr-47	Haught	5656	G	
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3300	27-Apr-47	Haught	5656	NO	
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3500	27-Apr-47	Haught	5656	U	
glabra	Colombia	Cundinamarca	Road east fom Guasca	3000	21-May-47	Haught	5742	NO	
glabra	Colombia	Cundinamarca	Road east fom Guasca	3000	21-May-47	Haught	5742	US	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		7 Oct 1852	Holton	470	G	[G-BOISS] iso [Bogotána]
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		7 Oct 1852	Holton	470	G	isolect [Bogotána]
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		7 Oct 1852	Holton	470	GH	iso [Bogotána]
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		7 Oct 1852	Holton	470	K	lect [Bogotána]
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		7 Oct 1852	Holton	470	NY	iso [Bogotána]
glabra	Colombia				Nov 1853	Holton	s.n.	PH	
glabra	Colombia	Cundinamarca	Páramo de Chingaza, Fomeque	2700-3250	22-Dec-63	Huertas & Camargo	5754	COL	
glabra	Colombia	Cundinamarca	Páramo de Palacio	3400-3600	16-Jul-58	Idrobo & Hernández	2759	COL	
glabra	Colombia		Ocona to Pamplona	1830-2440	22-Feb-09	Kalbreyer	1142	K	
glabra	Colombia	Cundinamarca	Bogotá			Karsten	s.n.	W	
glabra	Colombia	Cundinamarca	Páramo de Guasca, Los Gaques	3250	12-Mar-39	Killip	34074	BM	
glabra	Colombia	Cundinamarca	Páramo de Guasca, Los Gaques	3250	12-Mar-39	Killip	34074	F	
glabra	Colombia	Cundinamarca	Páramo de Guasca, Los Gaques	3250	12-Mar-39	Killip	34074	GH	
glabra	Colombia	Cundinamarca	Páramo de Guasca, Los Gaques	3250	12-Mar-39	Killip	34074	S3	
glabra	Colombia	Cundinamarca	Páramo de Guasca, Los Gaques	3250	12-Mar-39	Killip	34074	US	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	3000-3300	16-Apr-44	Killip et al.	38076	P	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	3000-3300	16-Apr-44	Killip et al.	38076	US	
glabra	Colombia				16-Jan-09	Linden	833	G	
glabra	Colombia					Linden	833	OXF	

glabra	Colombia	Cundinamarca	Bogotá	1100	16-Jan-09	Linden	833	P	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	1600	17-Jan-09	Linden	1308	P	
glabra	Colombia	Tolima	Ibagué			Linden	s.n.	BR	
glabra	Colombia	Cundinamarca	Bogotá	2800		Lindig	3550	P	LINDEN?
glabra	Colombia	Cundinamarca	Carr. Bogotá-Choachi		3-Mar-67	Lozano C. et al.	689	COL	
glabra	Colombia	Cundinamarca	7-10 km above Guasca along road to Gachetá	2865-3050	16-May-79	Luteyn & Lebrón-Luteyn	7737	CAS	
glabra	Colombia	Cundinamarca	7-10 km above Guasca along road to Gachetá	2865-3050	16-May-79	Luteyn & Lebrón-Luteyn	7737	GH	
glabra	Colombia	Cundinamarca	7-10 km above Guasca along road to Gachetá	2865-3050	16-May-79	Luteyn & Lebrón-Luteyn	7737	NY	
glabra	Colombia	Cundinamarca	7-10 km above Guasca along road to Gachetá	2865-3050	16-May-79	Luteyn & Lebrón-Luteyn	7737	U	
glabra	Colombia	Cundinamarca	Páramo de Guerrero, between Zipaquira and Pacho	3280	28-Sep-74	Maas & Jaramillo	1794	GH	[2 sheets]
glabra	Colombia	Cundinamarca	Páramo de Guerrero, between Zipaquira and Pacho	3280	28-Sep-74	Maas & Jaramillo	1794	U	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3100	23-Jul-63	McKee	10517	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3100	23-Jul-63	McKee	10517	P	
glabra	Colombia	Cundinamarca	Páramo de Palacio	3200-3400	24-Mar-60	Mora	957	COL	
glabra	Colombia					Mutis	90	MA-MUTIS	[6 sheets]
glabra	Colombia					Mutis	90	US	
glabra	Colombia				1783-1808	Mutis	333	G	
glabra	Colombia				1783-1808	Mutis	333	MA-MUTIS	[7 sheets]
glabra	Colombia					Mutis	333	US	
glabra	Colombia				1783-1808	Mutis	383	S	
glabra	Colombia				1783-1808	Mutis	4562	MA-MUTIS	[4 sheets]
glabra	Colombia					Mutis	s.n.	LINN	microfiche only
glabra	Colombia	Cundinamarca	Bogotá, Guadalupe	3355	19-Dec-29	Niemeyer	215	US	
glabra	Colombia	Cundinamarca	Bogotá, SW of Las Cruces	3000-3100	24-Sep-17	Pennell	2195	GH	
glabra	Colombia	Cundinamarca	Bogotá, SW of Las Cruces	3000-3100	24-Sep-17	Pennell	2195	NY	
glabra	Colombia	Cundinamarca	Bogotá, Monserrate		1-Jul-31	Pérez Arbeláez	1058	COL	

glabra	Colombia	Cundinamarca	Bogotá, Monserrate		1-Jul-31	Pérez Arbeláez	1058	US	
glabra	Colombia	Cundinamarca	Páramo de la Calera	3000-3300	25-Feb-50	Philipson et al.	2460	BM	
glabra	Colombia	Cundinamarca	Páramo de la Calera	3000-3300	25-Feb-50	Philipson et al.	2460	COL	
glabra	Colombia	Cundinamarca	Road to Choachi from Bogotá	3050	22-Sep-74	Plowman et al.	4279	COL	
glabra	Colombia	Cundinamarca	Road to Choachi from Bogotá	3050	22-Sep-74	Plowman et al.	4279	GH	
glabra	Colombia	Cundinamarca	Bogotá		31-Dec-08	Purdie	s.n.	K	L. mutisia
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	3200	26-Apr-51	Romero-Castañeda	2489	COL	iso [polyantha]
glabra	Colombia	Cundinamarca	Bogotá, Monserrate	3200	26-Apr-51	Romero-Castañeda	2489	F	iso [polyantha]
glabra	Colombia	Cundinamarca	Bogotá	2987	1-May-48	Sandeman	5941	K	
glabra	Colombia	Cundinamarca	Bogotá	2987	1-May-48	Sandeman	5941	OXF	
glabra	Colombia	Cundinamarca	Bogotá, Hacienda Chicó, near Usaquen		11-Feb-45	Schiefer	444	CAS	
glabra	Colombia	Cundinamarca	Usapuén	2900	27-Feb-45	Schneider	145	S3	
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18801	GH	
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18801	NO	
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18801	US/	not on loan
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18806	GH	
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18806	NO	
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18806	U	[2 sheets]
glabra	Colombia	Cundinamarca	Represa de Sisga	2745	2-Mar-53	Schultes	18806	US	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2850-3340	22-Jan-42	Schultes & Jaramillo M.	3185	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2850-3340	22-Jan-42	Schultes & Jaramillo M.	3185	F	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2850-3340	22-Jan-42	Schultes & Jaramillo M.	3185	GH	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2850-3340	22-Jan-42	Schultes & Jaramillo M.	3185	US	
glabra	Colombia	Cundinamarca	Bogotá [S. Fé]			Schyter	s.n.	P	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3000	16-Jul-63	Soejarto & Martin	76	F	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3000	16-Jul-63	Soejarto & Martin	76	GH	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3000	16-Jul-63	Soejarto & Martin	76	K3	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3000	16-Jul-63	Soejarto & Martin	76	NY	
glabra	Colombia	Cundinamarca	Páramo de Guasca	2800-3000	16-Jul-63	Soejarto & Martin	76	US	

glabra	Colombia	Cundinamarca	Mts. East of Bogotá		5 Feb 1899	Sprague	219	K	
glabra	Colombia	Cundinamarca	S. Cristobal, Bogotá	2837	1-Oct-22	Tracey	444	K	
glabra	Colombia					Triana	83	K	
glabra	Colombia					Triana	83	P	
glabra	Colombia	Cundinamarca	Bogotá	2800	1851-1857	Triana	s.n.	BM	[2 sheets]
glabra	Colombia	Cundinamarca	Bogotá	2800	25-Jan-09	Triana	s.n.	BR	
glabra	Colombia	Cundinamarca	Bogotá, Cord. De Bogotá	2800	1851-1857	Triana	s.n.	E	
glabra	Colombia	Cundinamarca	Bogotá	2800	Feb 1868	Triana	s.n.	FI	
glabra	Colombia	Cundinamarca	Bogotá	2500	9-Feb-09	Triana	s.n.	G	
glabra	Colombia	Cundinamarca	Bogotá			Triana	s.n.	G	
glabra	Colombia	Cundinamarca	Páramos de Bogotá	3200	25-Jan-09	Triana	s.n.	MANC H	
glabra	Colombia	Cundinamarca	Bogotá	2800	1851-1857	Triana	s.n.	P	
glabra	Colombia	Cundinamarca	Bogotá		1851-1857	Triana	s.n.	P	
glabra	Colombia	Cundinamarca	Bogotá			Triana	s.n.	US	
glabra	Colombia	Cundinamarca	Bogotá, Cord. De Bogotá	2800	1851-1857	Triana	s.n.	W	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3000	4-Jan-52	Uribe Uribe	2238	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3100	3-Jun-72	Uribe Uribe	6671	COL	
glabra	Colombia	Cundinamarca	Páramo de Guasca	3100	3-Jun-72	Uribe Uribe	6671	NY	
glabra	Colombia	Cundinamarca	Road from Bogotá to Villavicencio		10-Oct-72	Weaver	2636	GH	
glabra	Colombia	Cundinamarca	Road from Bogotá to Villavicencio		10-Oct-72	Weaver	2636	MO	
glabra	Colombia	Cundinamarca	Road from Bogotá to Villavicencio		10-Oct-72	Weaver	2636	NY	
glabra	Colombia	Cundinamarca	Alto de Tablazo, near Subachoque	3300-3330	3-Sep-90	Wijninga	557	MO	
glabra	Colombia	Cundinamarca	Alto de Tablazo, near Subachoque	3300-3330	3-Sep-90	Wijninga	557	U	
glabra	Colombia	Cundinamarca	Along road Guasca - Paramo de Guasca		21-Jan-91	Wijninga	684	NY	
glabra	Colombia	Cundinamarca	Along road Guasca - Paramo de Guasca		21-Jan-91	Wijninga	684	U	
glabra	Colombia	Cundinamarca	Páramo de Guasca		9-Feb-72	Wolfe	1209	NA	
glabra	Colombia	Cundinamarca	Páramo de Guasca		9-Feb-72	Wolfe	1209	WIS	
glabra	Colombia	Cundinamarca	Páramo El Tablazo	3200	4-Feb-83	Wood	3607	K	

glaziovii	Brazil	Minas Gerais			26-Jan-09	Aeckermann	s.n.	BR	
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Macaé de Cima, Sítio Sofronites, nascente do rio das Flores		22-Oct-90	Amorim et al.	264-A	RB*	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Macaé de Cima, estrada de terra, cerca de 900 m do Hotel São João		19-Jan-99	Anderson et al.	99/09	RB*	
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, 22 33/ 22 28 S, 42 30/ 42 34 W		26-Oct-89	Araujo et al.	85	RB*	[3 sheets]
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado, Paineiras		12 Oct 1884	Belarmino	s.n.	R	
glaziovii	Brazil	Rio de Janeiro				Bowie & Cunningham	s.n.	BM	
glaziovii	Brazil	Rio de Janeiro			1814-1817	Bowie & Cunningham	s.n.	BM	
glaziovii	Brazil	Rio de Janeiro	Therezopolis, Pedra do Frade	1600	1-Nov-29	Brade	9931A	R	
glaziovii	Brazil	Rio de Janeiro	Mun. Itatiaia, P.N. Itatiaia, Trilha do Hotel Simon para o Tres Picos	1300	5-Oct-94	Braga et al.	1390	RB	[2 sheets]
glaziovii	Brazil	São Paulo			10-Feb-09	Burchell	3630	BR	[2 sheets]
glaziovii	Brazil		Burchell. Catalogus Geographicus Plantarum Brasiliae Tropicae.			Burchell	3630	K	
glaziovii	Brazil	São Paulo			10-Feb-09	Burchell	3630	P	
glaziovii	Brazil		Planalto, Itatiayo		1-Nov-18	Campos Porto	828	RB	
glaziovii	Brazil	Rio de Janeiro	Floresta da Tijuca	650	23-Aug-59	Carauta	66	R	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Guanabara, Floresta da Tijuca, Estrada do Excelsior		9-Oct-63	Castellanos	24427	GH	
glaziovii	Brazil	Rio de Janeiro	Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, Sítio Sophronites	1100	11-Sep-90	Correia	134	NY	
glaziovii	Brazil	Rio de Janeiro	Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, Sítio Sophronites	1100	11-Sep-90	Correia	134	RB*	
glaziovii	Brazil	Rio de Janeiro	Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, Sítio Sophronites	1100	11-Sep-90	Correia	134	SP	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado à Tijuca		Oct 1862	Drake	s.n.	P	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado		10-Nov-47	Duarte	973	NEU	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado		10-Nov-47	Duarte	973	RB*	[5 sheets]
glaziovii	Brazil	Rio de Janeiro	P.N. Serra dos Orgãos, Terezopolis		23-Oct-42	Duarte	1091	RB	[3 sheets]
glaziovii	Brazil	Rio de Janeiro	P.N. da Serra dos Orgãos, Terezopolis		24-Nov-42	Duarte	1154	RB	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Estrada do Sumaré		31-Oct-39	Ducke & Kuhlmann	s.n.	NEU	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Estrada do Sumaré		31-Oct-39	Ducke & Kuhlmann	s.n.	RB*	[7 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Distrito de Macaé de Cima, Sítio Sofronites	1100	12-Sep-89	Fonseca Vaz	654	RB*	
glaziovii	Brazil	Rio de Janeiro	Terezópolis		26-Feb-09	Gab. Bot. Esc. Poly.	6869	R	
glaziovii	Brazil	Rio de Janeiro	Serra do Rifa, P.E. do Desengano		1-Mar-81	Garcia da Silva	79	R	

glaziovii	Brazil	Rio de Janeiro	Organ Mts.	915	Mar 1837	Gardner	539	BM	
glaziovii	Brazil	Rio de Janeiro	Organ Mts.	915	Mar 1837	Gardner	539	K	
glaziovii	Brazil	Rio de Janeiro	[Ceara]			Gardner	1764	W	
glaziovii	Brazil	Rio de Janeiro	Itatiaya-Gebiet	850	30-Oct-27	Ginzberger & Zerny	s.n.	F	
glaziovii	Brazil	Rio de Janeiro	Itatiaya-Gebiet	1800	2-Nov-27	Ginzberger & Zerny	s.n.	F	
glaziovii	Brazil	Rio de Janeiro	Itatiaya-Gebiet	850	30-Oct-27	Ginzberger & Zerny	s.n.	WU	
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, estrada atrás do Posto Policial da Rodovia Cachoeira de Macacu-Nova Friburgo	1083	27-Oct-94	Giordano	1738	RB*	[3 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, estrada atrás do Posto Policial da Rodovia Cachoeira de Macacu-Nova Friburgo	1083	27-Oct-94	Giordano	1738	NEU	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro		10-Feb-09	Glaziou	900	BR	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro		10-Feb-09	Glaziou	900	C	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado à Paineiras		4 May 1865	Glaziou	900	P	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado à Paineiras		May 1865	Glaziou	900	R	
glaziovii	Brazil	Rio de Janeiro	Floresta da Tijuca		7 Oct 1871	Glaziou	4939	C	iso [2 sheets]
glaziovii	Brazil	Rio de Janeiro	Floresta da Tijuca		7 Oct 1871	Glaziou	4939	K	lect
glaziovii	Brazil	Rio de Janeiro	Floresta da Tijuca		7 Nov 1868	Glaziou	4939	P	iso [3 sheets]
glaziovii	Brazil	Rio de Janeiro				Glaziou	s.n.	P	
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, 22 33/ 22 28 S, 42 30/ 42 34 W		7-Nov-88	Guedes et al.	2190	RB*	
glaziovii	Brazil	Rio de Janeiro	El Corcovado		17 Oct 1862	Isern	6354	MA- ISERN	[4 sheets]
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Sumaré		5-Dec-32	Kuhlmann	s.n.	RB	[3 sheets]
glaziovii	Brazil	Minas Gerais		1000		Langsdorff	s.n.	BR	iso var. constricta
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado et Mandiocca			Langsdorff	s.n.	BR	
glaziovii	Brazil	Minas Gerais		1000		Langsdorff	s.n.	K	holo var. constricta
glaziovii	Brazil	Rio de Janeiro	Nova Friburgo, Cabeceira do Rio das Flores	1300	24-Aug-86	Leitman	129	RB	
glaziovii	Brazil	Rio de Janeiro	P.N. Serra dos Orgãos	1100	21-Nov-44	Link	2218	R	
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Muri, Macaé de Cima	1000	18-Jun-86	Martinelli et al.	11739	RB	
glaziovii	Brazil	Rio de Janeiro	Tijuca			Miers	s.n.	BM	
glaziovii	Brazil	Rio de Janeiro				Nadeaud	s.n.	P	[4 sheets]

glaziovii	Brazil	Rio de Janeiro	Teresopolis, BR-4	1000	20-Oct-63	Pabst	28073	B	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Represa de Camorim		21-Apr-09	Peckolt et al.	s.n.	R	
glaziovii	Brazil	Rio de Janeiro	Serra dos Orgãos, Castele D'Agua		28-Nov-42	Pereira, E.	229	RB	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Serra dos Orgãos, Castele D'Agua		28-Nov-42	Pereira, E.	229	US/	not on loan
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado, Sumaré		17-Dec-42	Pereira, E.	284	US	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro, Corcovado, Sumaré		17-Dec-42	Pereira, E.	284	RB	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Corcovado, Sumaré		12-Dec-42	Pereira, E.	292	RB	[3 sheets]
glaziovii	Brazil	Espírito Santo	Mun. de Castello, Farrio Grande		6-Dec-56	Pereira, E.	2103	RB	[3 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima		16-Feb-93	Pereira, T.S. et al.	13	RB*	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Macaé de Cima, Faz Sophronites	1200	16-Jul-87	Pessoa et al.	214	RB*	[3 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Macaé de Cima, Faz Sophronites	1250	18-Aug-87	Pessoa et al.	249	RB*	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Corcovado			Riedel	s.n.	BR	[2 sheets]
glaziovii	Brazil		Rio Pardo			Riedel	s.n.	OXF	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro			Rijksherbarium Leiden	141	L	
glaziovii	Brazil	Minas Gerais			1-May-83	Saint-Hilaire	706	P	
glaziovii	Brazil	Rio de Janeiro	Mun. São Fidelis		1-Aug-33	Santos Lima	210	RB	[3 sheets]
glaziovii	Brazil	Rio de Janeiro	Pica da Tijuca	1000	16-Jul-44	Segadas-Vianna	571	R	
glaziovii	Brazil	Rio de Janeiro	Serra Negra		3-Oct-59	Strang	139	R	[2 sheets]
glaziovii	Brazil	Minas Gerais	Serra de Ibitipoca	1500-1700	28-Sep-70	Sucre	7134	RB	
glaziovii	Brazil	Rio de Janeiro	Pedra da Gavea	750	7-Feb-71	Sucre	7444	RB	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Serra dos Orgãos, Dedo de Deus		13 Dec 1891	Ule	2414	R	
glaziovii	Brazil	Rio de Janeiro	Tijuca		12-Feb-44	Vales & Vidal	s.n.	R	
glaziovii	Brazil	Rio de Janeiro	P.N. Serra dos Orgãos	950	11-Oct-12	Vidal	II-4779	R	
glaziovii	Brazil	Rio de Janeiro	Terezópolis	860	24-Oct-12	Vidal	II-4835	R	
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, caminho para os Pirineus, 22 33/ 22 28 S, 42 30/ 42 34 W		21-Jun-89	Vieira et al.	32	RB*	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Reserva Ecológica Municipal de Macaé de Cima, caminho para os Pirineus, 22 33/ 22 28 S, 42 30/ 42 34 W		12-Sep-89	Vieira et al.	78	RB*	[2 sheets]
glaziovii	Brazil	Rio de Janeiro	Mun. Nova Friburgo, Macaé de Cima, margens do Rio das Flores		15-Sep-88	Wendt	185	RB*	
glaziovii	Brazil	Rio de Janeiro				Widgren	1234	S	

glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro		18-Jan-09	Widgren	s.n.	S	
glaziovii	Brazil	Rio de Janeiro	Rio de Janeiro		1838-1842	Wilkes	s.n.	US	
gondoloides	Ecuador	Carchi	Tulcan, Res. Etnica Awá, Parroquia El Chical, Centro Gualpi Medio	900	18-Feb-93	Aulestia & Grijalva	1122	MO3	
gondoloides	Colombia	Chocó	Nóvita, ladera norte del Cerro Torrá	600-900	22-Feb-77	Forero et al.	3158	COL	holo
gondoloides	Colombia	Chocó	Nóvita, ladera norte del Cerro Torrá	600-900	22-Feb-77	Forero et al.	3158	MO	iso
gondoloides	Colombia	Chocó	Nóvita, ladera norte del Cerro Torrá	1000-1150	22-Feb-77	Forero et al.	3226	COL	
gondoloides	Colombia	Chocó	Nóvita, ladera norte del Cerro Torrá	1000-1150	22-Feb-77	Forero et al.	3226	MO	
gondoloides	Colombia	Nariño	Mpio. de Ricaurte, Resguardo Indígena Nulpe Medio, Andalucía, camino a Piguntís	780	13-Jan-96	González & Ramírez P.	1688	QCA2	
gondoloides	Ecuador	Carchi	Tulcan, Res. Indígena Awá, Parroquia El Chical	750	20-Apr-90	Méndez et al.	231	QCNE	*
gondoloides	Colombia	Chocó	San José del Palmar, Cerro del Torrá	1800-1900	23-Aug-88	Ramos et al.	1477A	COL	
gondoloides	Ecuador	Carchi	Tulcan, Res. Indígena Awá	1500	16-Nov-90	Rubio et al.	1077	HAM	iso
gondoloides	Ecuador	Carchi	Tulcan, Res. Indígena Awá	1500	16-Nov-90	Rubio et al.	1077	MO	holo
gondoloides	Ecuador	Carchi	Tulcan, Res. Indígena Awá	1500	16-Nov-90	Rubio et al.	1077	QCNE	iso
gondoloides	Ecuador	Carchi	Tulcan, Res. Indígena Awá, Parroquia Chical	3200	23-May-92	Tipaz et al.	1051	MO	[2 sheets]
gracilis	Peru	Cajamarca	San Ignacio, San José de Lourdes, Picorana	2470-2560	18-Aug-98	Campos et al.	5564	HUT	not on loan
gracilis	Peru	Cajamarca	San Ignacio, San José de Lourdes, Picorana	2470-2560	18-Aug-98	Campos et al.	5564	MO3	
gracilis	Peru	Cajamarca	San Ignacio, San José de Lourdes, Picorana	2470-2560	18-Aug-98	Campos et al.	5564	U2	
gracilis	Peru	Cajamarca	San Ignacio, San José de Lourdes, Campamento Zural, base del Cerro Picorana	2200	23-Jan-99	Díaz, C. et al.	10504	HUT	not on loan
gracilis	Peru	Cajamarca	San Ignacio, San José de Lourdes, Campamento Zural, base del Cerro Picorana	2200	23-Jan-99	Díaz, C. et al.	10504	NEU	
gracilis	Peru	Cajamarca	E of Huancabamba		1909-1914	Weberbauer	6116	F	holo [2 sheets]
gran-pajatena	Peru	San Martín	Mariscal Cáceres, P.N. Río Abiseo		5-Jul-88	León & Young	2075	HUT	
gran-pajatena	Peru	San Martín	Mariscal Cáceres, trail between Las Papayas and La Playa Camps	2600	27-Jul-85	Young	1340	HUT	
gran-pajatena	Peru	San Martín	Mariscal Cáceres, approx. 7 S, 77 W, hill past Las Palmas	2650-2750	16-Aug-86	Young	4024	HUT	
gran-pajatena	Peru	San Martín	Mariscal Cáceres, trail between La Playa Camp and Papayas camp, Río Abiseo National Park	2650-2750	25-Jul-87	Young & León	4977	HUT	
gran-pajatena	Peru	San Martín	Mariscal Cáceres, trail between La Playa Camp and Papayas camp, Río Abiseo National Park	2650-2750	25-Jul-87	Young & León	4977	U	
gravabilis	Colombia	Antioquia	Encarnación to P.N. de los Orchídeas	1600-1800	27-Jan-79	Gentry & Renteria	24569	COL	iso
gravabilis	Colombia	Antioquia	Encarnación to P.N. de los Orchídeas	1600-1800	27-Jan-79	Gentry & Renteria	24569	MO	holo
gravabilis	Colombia	Caldas	La Selva, Pueblo Rico	1500	27-Jan-46	von Sneidern	5434	S	

gulosa	Colombia	N de Santander	Toledo, 28.8 km de San Bernardo de Bata	2300-2400	1-Nov-94	Fernández Alonso	11794	COL	
harlingii	Peru	Amazonas	Condorcanqui, Cordillera del Condor, la pared del "tepui" Cerro Machinaza	1950-2050	21-Jul-94	Beltrán & R. Foster	1204	USM	
harlingii	Peru	Cajamarca	San Ignacio, Huarango, Localidad Romerillo, Cordillera entre Romerillo y Nuevo Mundo	2300	27-Jul-97	Campos et al.	4284	MO3	
harlingii	Peru	Cajamarca	San Ignacio, Huarango, Localidad Romerillo, Cordillera entre Romerillo y Nuevo Mundo	2300	27-Jul-97	Campos et al.	4284	U2	[2 sheets]
harlingii	Ecuador	Zamora-Chinchipe	Carr. Loja-Zamora, Cuenca del rio San Francisco, Fundacion Arco Iris	2100	27-Feb-00	Cerón et al.	40105	QAP	
harlingii	Ecuador	Zamora-Chinchipe	N bank of the Río Zamora, 25 km E of Loja	2092-2125	11-Jul-89	Dorr & Valdespino	6616	HAM	
harlingii	Ecuador	Zamora-Chinchipe	N bank of the Río Zamora, 25 km E of Loja	2092-2125	11-Jul-89	Dorr & Valdespino	6616	QCA	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4048	G	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4048	LOJA	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4048	NY	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4048	QCNE	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4048	SBG	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4049	LOJA	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4049	NEU	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4049	NY	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4049	QCA	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4049	QCNE	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4049	US	[2 sheets]
harlingii	Ecuador	Loja	W slope of Nudo de Sabanilla	2300-2500	2-Apr-85	Harling & Andersson	23531	GB	holo
harlingii	Ecuador	Loja	W slope of Nudo de Sabanilla	2300-2500	2-Apr-85	Harling & Andersson	23531	QCA	not on loan
harlingii	Peru	Amazonas	Bongará, 4 km N of Pomacochas on road to Rioja	2150-2200	2-Jun-86	Knapp et al.	7467	USM	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, La Esmeralda (Cooperativo San Francisco de Numbala Alto), bosque primario "achaparrado" con dosel de 6 m de altura en cresta de colina, 04 22 S, 79 03 W	2300	1-Jan-95	Palacios & Tirado	13098	MO	loan at Rutgers

harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, La Esmeralda (Cooperativo San Francisco de Numbala Alto), bosque primario "achaparrado" con dosel de 6 m de altura en cresta de colina, 04 22 S, 79 03 W	2300	1-Jan-95	Palacios & Tirado	13098	QCNE	
harlingii	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, La Esmeralda (Cooperativo San Francisco de Numbala Alto), bosque primario "achaparrado" con dosel de 6 m de altura en cresta de colina, 04 22 S, 79 03 W	2300	1-Jan-95	Palacios & Tirado	13098	U	
harlingii	Ecuador	Zamora-Chinchipe	Trail from the Loja-Zamora Rd to Río Santiago in P.N. Podocarpus, Sitio San Francisco	2000	4-May-95	Pedersen et al.	10417 0	LOJA	
harlingii	Ecuador	Zamora-Chinchipe	Trail from the Loja-Zamora Rd to Río Santiago in P.N. Podocarpus, Sitio San Francisco	2000	4-May-95	Pedersen et al.	10417 0	QCA	*
harlingii	Ecuador	Zamora-Chinchipe	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	903	MO	loan at Rutgers
harlingii	Ecuador	Zamora-Chinchipe	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	903	NEU	iso
harlingii	Ecuador	Zamora-Chinchipe	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	903	QCNE	*
harlingii	Ecuador	Zamora-Chinchipe	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	903	U	
harlingii	Peru	Amazonas	Bongará, Bosque de Protección Alto Mayo	2550	19-Mar-02	Vásquez	27655	NEU	
hilarula	Colombia	Meta	Finca Balsillas, Upper Río Balsillas (part of old Hacienda Balsillas), 40 km ESE of Neiva	2300	7-Dec-42	Fosberg	19285	NO	iso [3 sheets]
hilarula	Colombia	Meta	Finca Balsillas, Upper Río Balsillas (part of old Hacienda Balsillas), 40 km ESE of Neiva	2300	7-Dec-42	Fosberg	19285	S	iso
hilarula	Colombia	Meta	Finca Balsillas, Upper Río Balsillas (part of old Hacienda Balsillas), 40 km ESE of Neiva	2300	7-Dec-42	Fosberg	19285	US	holo [3 sheets]
hilarula	Colombia	Meta	Colombia-Urbe trail, bet. Buenavista and La Rucio Pass	1540	24-Dec-42	Fosberg	19546	US	[2 sheets]
illecebroso	Colombia	Putumayo	San Francisco, km 83 margen derecha carretera a Mocoa	2890	18-Nov-71	López J.	447	NY	
illecebroso	Colombia	Putumayo	Páramo de San Antonio, entre La Laguna de La Cohca e el Valle de Sibundoy	3000-3200	13-Feb-42	Schultes	3223	COL	at NY
illecebroso	Colombia	Putumayo	Páramo de San Antonio, entre La Laguna de La Cohca e el Valle de Sibundoy	3000-3200	13-Feb-42	Schultes	3223	F	
illecebroso	Colombia	Putumayo	Páramo de San Antonio, entre La Laguna de La Cohca e el Valle de Sibundoy	3000-3200	13-Feb-42	Schultes	3223	GH	
innarrabilis	Peru	Amazonas	Yambasbamba			Matthews	1314	K	holo
innarrabilis	Peru	Amazonas	Bagua, upper slopes and summit of Cerro Teyu	1030	22-Mar-01	van der Werff et al.	16315	NEU	
innarrabilis	Peru	Amazonas	Bagua, Imaza, Tayu Majaji	900-1030	17-Feb-02	Vásquez	27601	MO3	
innarrabilis	Peru	Amazonas	Bagua, Imaza, Tayu Majaji, Comunidad Nativas de Wawas	1100	7-Feb-99	Vásquez et al.	26057	NEU	
innarrabilis	Peru	Amazonas	Bagua, Imaza, Tayu Majaji, Comunidad Nativas de Wawas	1100	7-Feb-99	Vásquez et al.	26057	U2	
innarrabilis	Peru				1876-1877	Vidal-Sénège	s.n.	P	[3 sheets]
innarrabilis	Peru	Amazonas	Rodriguez de Mendoza	1400-2500	1-Jul-63	Woytkowski	8018	MO3	

innarrabilis	Peru	Amazonas	Rodriguez de Mendoza	1400-2500	1-Jul-63	Woytkowski	8018	U	
jactans	Ecuador	Napo	P.N. Napo-Galeras, Cordillera de Galeras, sendera hacia el Río Pucuno	1550-1650	20-Mar-97	Alvarez, A. et al.	1726	MO3	
jactans	Ecuador	Napo	P.N. Napo-Galeras, Cordillera de Galeras, sendera hacia el Río Pucuno	1550-1650	20-Mar-97	Alvarez, A. et al.	1726	QCNE	*
jactans	Peru	Amazonas	Bagua, 12 km E of La Peca	1775	4-Jul-78	Barbour	2635	MO3	
jactans	Peru	Cajamarca	San Ignacio, San José de Lourdes, camino al Cerro Picorana	2100-2200	15-Aug-98	Campos et al.	5519	MO	
jactans	Peru	Amazonas	San José de Lourdes, base del Cerro Picorana	1900-2010	26-Aug-99	Díaz, C. et al.	10764	NEU	
jactans	Peru	Amazonas	Bagua, ca. 12 trail km E of La Peca in Serrania de Bagua	1650-1800	13-Jun-78	Gentry et al.	23030	HAM	
jactans	Ecuador	Zamora-Chinchi	Valladolid on rd to Yangana	2300	1-Feb-85	Harling & Andersson	21370	GB	
jactans	Peru	Amazonas	Bongará, Yambrasbamba, 40 km N of Jumbilla	1860-2000	2-Mar-67	Tillett	673-278	US	
jactans	Peru	Amazonas	Bongará, Yambrasbamba, 40 km N of Jumbilla	1860-2000	2-Mar-67	Tillett	673-278	USM	
jactans	Ecuador	Zamora-Chinchi	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	887	CHRB	
jactans	Ecuador	Zamora-Chinchi	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	887	MO	loan at Rutgers
jactans	Ecuador	Zamora-Chinchi	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	887	QCNE	*
jactans	Ecuador	Zamora-Chinchi	Cordillera del Condor, campamento Militar Pachicutza	1849	22-Feb-94	Tirado & Gray	887	U	
jactans	Peru	Cajamarca	San Ignacio, San Jose de Lourdes, Santo Tomas	2200	15-Jun-95	Vasquez et al.	20219	HAM	
jactans	Peru	Cajamarca	San Ignacio, San Jose de Lourdes, Santo Tomas	2200	15-Jun-95	Vasquez et al.	20219	MO3	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2600	10-Aug-87	Díaz & Osore de Díaz	2584	USM	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2400	14-Mar-89	Díaz, C. et al.	3262	MO3	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2400	14-Mar-89	Díaz, C. et al.	3262	USM	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2400	14-Mar-89	Díaz, C. et al.	3264	MO3	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2680	15-Mar-89	Díaz, C. et al.	3326	HAM	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2680	15-Mar-89	Díaz, C. et al.	3326	MO3	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2680	15-Mar-89	Díaz, C. et al.	3326	USM	
jalca	Peru	Cajamarca	Cutervo, San Andrés de Cutervo, P.N. de Cutervo	2300-2400	11-Jan-90	Díaz, C. et al.	3942	HAM	
jalca	Peru	Cajamarca	Cutervo, Cerros de Cutervo	2700-2800	2-Aug-46	Ferreya	873	USM	
jalca	Peru	Cajamarca	Cutervo, Cutervo National Park, Chorro Blanco, 15 km N of San Andres de Cutervo	2650-2750	13-Sep-91	Gentry et al.	74765	U2	
jalca	Peru	Cajamarca	Cutervo, Lo Hucan Cutervo	2850	24-Jan-59	Núñez	7162	Z	
jalca	Peru	Cajamarca	Cutervo, P.N. Cutervo, San Andres de Cutervo	2350-2430	14-Mar-89	Smith J.F. & Díaz	1558	GB	

jalca	Peru	Cajamarca	Cutervo, P.N. Cutervo, San Andres de Cutervo	2350-2430	14-Mar-89	Smith J.F. & Díaz	1558	WIS	
jalca	Peru	Cajamarca	Cutervo, 10 km NW of Socota	3200	10-Dec-38	Stork & Horton	10118	F	iso
jalca	Peru	Cajamarca	Cutervo, 10 km NW of Socota	3200	10-Dec-38	Stork & Horton	10118	K3	iso
jalca	Peru	Cajamarca	Cutervo, 10 km NW of Socota	3200	10-Dec-38	Stork & Horton	10118	UC	iso
jalca	Peru	Cajamarca	Cutervo, 10 km NW of Socota	3200	10-Dec-38	Stork & Horton	10118	US	holo
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	G	iso [2 sheets]
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	LOJA	iso
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	NEU	iso
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	NY	iso
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	QCNE	iso
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	SBG	iso
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4047	US	holo [3 sheets]
jensii	Ecuador	Zamora-Chinchi	Loja-Zamora rd	2600	15-Feb-85	Harling & Andersson	22118	GB	
jensii	Ecuador	Zamora-Chinchi	Loja-Zamora rd	2600	15-Feb-85	Harling & Andersson	22118	QCA	*
jensii	Ecuador	Zamora-Chinchi	Km 25 from Loja to Zamora, in the forest of the 'Estacion Cientifica San Francisco'	1850	1-Jan-98	Matt	16	ER	
jensii	Ecuador	Zamora-Chinchi	Km 25 from Loja to Zamora, in the forest of the 'Estacion Cientifica San Francisco'	1850	1-Jan-98	Matt	17	ER	
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus, La Emperalda (Cooperativa San Francisco de Numbala Alto)	2250	1-Jan-95	Palacios & Tirado	13033	MO	loan at Rutgers
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus, La Emperalda (Cooperativa San Francisco de Numbala Alto)	2250	1-Jan-95	Palacios & Tirado	13033	QCNE	
jensii	Ecuador	Zamora-Chinchi	P.N. Podocarpus, La Emperalda (Cooperativa San Francisco de Numbala Alto)	2250	1-Jan-95	Palacios & Tirado	13033	U	
jocularis	Colombia	Huila	Quebrada de Riolora, 15 km SE of Gigante	3050	20-Sep-44	Little	8708	COL	iso
jocularis	Colombia	Huila	Quebrada de Riolora, 15 km SE of Gigante	3050	20-Sep-44	Little	8708	NO	iso
jocularis	Colombia	Huila	Quebrada de Riolora, 15 km SE of Gigante	3050	20-Sep-44	Little	8708	US	holo
jocularis	Colombia	Huila	Algeciras, Alto El Roble	2000-2400	13-Oct-93	Orozco et al.	2801	COL	
kayakifolia	Peru	Huánuco	Carpish Hills, trail downslope from San Pedro de Carpish	2250-2450	15-Jan-87	Stein et al.	3864	HAM	iso
kayakifolia	Peru	Huánuco	Carpish Hills, trail downslope from San Pedro de Carpish	2250-2450	15-Jan-87	Stein et al.	3864	NEU	iso

kayakifolia	Peru	Huánuco	Carpish Hills, trail downslope from San Pedro de Carpish	2250-2450	15-Jan-87	Stein et al.	3864	U2	iso
kayakifolia	Peru	Huánuco	Carpish Hills, trail downslope from San Pedro de Carpish	2250-2450	15-Jan-87	Stein et al.	3864	USM	holo
kuelap	Peru	Amazonas	Luya, Camporredondo, Tullanga	2550	8-Sep-89	Díaz, C. & Campos	3853	MO3	
kuelap	Peru	Amazonas	Luya, Camporredondo, Tullanga	2550	8-Sep-89	Díaz, C. & Campos	3853	USM	
kuelap	Peru	Amazonas	Chachapoyas, Soloc, Pampa del Tio, camino entre Quitachi y Las Tinas	2000	5-Jul-91	Díaz, C. et al.	4595	MO3	
kuelap	Peru	Cajamarca	Chota, near Las Palmas, ca. 24 km NE of Chota	2789	17-Apr-93	Dillon et al.	6340	HAO	
kuelap	Peru	Cajamarca	Chota, near village of El Campamento, ca 21 km WNW of Huambos	2740	20-Apr-93	Dillon et al.	6432	HAO	
kuelap	Peru	Amazonas	Entre D'Aguas y Molinopampa	2095	28-Jan-01	Grant, J.R. & Rodriguez	3942	G	
kuelap	Peru	Amazonas	Entre D'Aguas y Molinopampa	2095	28-Jan-01	Grant, J.R. & Rodriguez	3942	HUT	
kuelap	Peru	Amazonas	Entre D'Aguas y Molinopampa	2095	28-Jan-01	Grant, J.R. & Rodriguez	3942	NEU	[2 sheets]
kuelap	Peru	Amazonas	Entre D'Aguas y Molinopampa	2095	28-Jan-01	Grant, J.R. & Rodriguez	3942	NY	
kuelap	Peru	Amazonas	Entre D'Aguas y Molinopampa	2095	28-Jan-01	Grant, J.R. & Rodriguez	3942	US	[2 sheets]
kuelap	Peru	Amazonas	Chachapoyas, Kuelap Fortress and surrounding	3000	16-May-01	Henning & Schneider	250	NEU	
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	F	iso
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	K3	iso
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	MO	iso
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	NY	iso [2 sheets]
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	UC	iso [2 sheets]
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	US	holo [2 sheets]
kuelap	Peru	Amazonas	Bongará, between Río Utcubamba and Pomacocha	2160-2210	31-Jan-64	Hutchinson & Wright	3903	USM	iso [2 sheets]
kuelap	Peru	Amazonas	Chachapoyas	—	—	Matthews	2118	BM	
kuelap	Peru	Amazonas	Chachapoyas	—	—	Matthews	2118	K	
kuelap	Peru	—	—	—	—	Matthews	3162	BM	

kuelap	Peru	Amazonas	Chachapoyas			Matthews	8110	K	
kuelap	Peru					Née, L.	s.n.	MA	
kuelap	Peru	Amazonas	Chachapoyas, Cerro Puma Urco		1-Jun-52	Soukup	4056	US	
kuelap	Peru	Amazonas	Bongará, Laguna Pomacocha, ridge NE of lake	2450-3350	7-Feb-85	Stein & Todzia	2104	HAM	
kuelap	Peru	Amazonas	Bongará, Laguna Pomacocha, ridge NE of lake	2450-3350	7-Feb-85	Stein & Todzia	2104	NEU	
kuelap	Peru	Amazonas	Bongará, Laguna Pomacocha, ridge NE of lake	2450-3350	7-Feb-85	Stein & Todzia	2104	U2	
kuelap	Peru	Amazonas	Bongará, Laguna Pomacocha, ridge NE of lake	2450-3350	7-Feb-85	Stein & Todzia	2104	USM	
kuelap	Peru	Amazonas	A few km from Molinopampa		14-Mar-98	van der Werff et al.	14961	MO3	
kuelap	Peru	Amazonas	A few km from Molinopampa		14-Mar-98	van der Werff et al.	14961	U2	
kuelap	Peru	Amazonas	Laguna Pomacochas	2250	20-Mar-98	van der Werff et al.	15255	MO3	
kuelap	Peru	Amazonas	Laguna Pomacochas	2250	20-Mar-98	van der Werff et al.	15255	U2	
kuelap	Peru	Amazonas	Chachapoyas, 10 km E of Molinopampa	2400	23-Feb-78	Wasshausen & Encarnación	996	US	
kuelap	Peru	Amazonas	Chachapoyas, 10 km E of Molinopampa	2400	23-Feb-78	Wasshausen & Encarnación	996	USM	
kuelap	Peru	Amazonas	Chachapoyas, road from Chachapoyas to Mendoza	2200	20-Oct-00	Weigend et al.	2000/ 892	F2	
kuelap	Peru	Amazonas	Chachapoyas, road from Chachapoyas to Mendoza	2200	20-Oct-00	Weigend et al.	2000/ 892	MSB	not seen
kuelap	Peru	Amazonas	Chachapoyas, road from Chachapoyas to Mendoza	2200	20-Oct-00	Weigend et al.	2000/ 892	NEU	
kuelap	Peru	Amazonas	Central Cordillera of the Andes, Chachapoyas to Moyobamba	2700-3300	21-Jan-30	Williams, L.	7596	F	
kuelap	Peru	Amazonas	Road to Levanto from Chachapoyas		7-Jan-72	Wolfe	842	NA	
kuelap	Peru	Amazonas	Chachapoyas		2-Jan-72	Wolfe & Dobson	711	US	
kuelap	Peru	Amazonas	Chachapoyas		4-Jan-72	Wolfe & Dobson	754	GH	
kuelap	Peru	Amazonas	Chachapoyas, Puma-urca SE of Chachapoyas	2500-2700	25-May-62	Wurdack	524	F	
kuelap	Peru	Amazonas	Chachapoyas, Puma-urca SE of Chachapoyas	2500-2700	25-May-62	Wurdack	524	NY	
kuelap	Peru	Amazonas	Chachapoyas, Puma-urca SE of Chachapoyas	2500-2700	25-May-62	Wurdack	524	US/	not on loan
kuelap	Peru	Amazonas	Chachapoyas, Puma-urca SE of Chachapoyas	2500-2700	25-May-62	Wurdack	524	USM	
kuepferiana	Peru	Puno	Carabaya, S. Gabán, Qda. Quillabamba	950-1000	8-Feb-67	Vargas, C.	18928	CUZ	
lacrossiformis	Colombia	Santander	Charalá, Corrg. Virolín	2000	17-Oct-85	Castro & Rodriguez	1011	COL	
lacrossiformis	Colombia	Boyacá	Gámbita, vereda el Taladro	2100	19-Oct-83	Lozano C.	3931	COL	[2 sheets]
lacrossiformis	Colombia	Boyacá	Arcabuco, La Cumbre, Bosque de Robles	2300	8-Oct-80	Lozano C. & Díaz	3721	COL	
lacrossiformis	Colombia	Santander	Gámbita, Coregimiento Talandro	2200	14-Feb-83	Orozco	1060	COL	holo [2 sheets]

lacrossiformis	Colombia	Boyacá	Río Pomera, 12 km NW of Arcabuco	2805	20-Aug-44	St. John	20678	NO	
lacrossiformis	Colombia	Boyacá	Río Pomera, 12 km NW of Arcabuco	2805	20-Aug-44	St. John	20678	US	
lacrossiformis	Colombia	Santander	Charalá, Corregimiento de Virolín	2170	19-Oct-83	Torres R.	2637	COL	
lacrossiformis	Colombia	Boyacá	Tota	3200	1-Dec-51	Yepes-Agredo	3374	COL	
laudabilis [cuatrecasasii]	Colombia	Caquetá	Comisaría del Caquetá	2300-2450	21-Mar-40	Cuatrecasas	8435	US	
laudabilis [cuatrecasasii]	Colombia	Huila	Carr. a la Plata, Moscopán, Santa Leticia	2230	21-Jun-48	García-Barriga & Hawkes	12884	COL	
laudabilis [cuatrecasasii]	Colombia	Huila	Carr. a la Plata, Moscopán, Santa Leticia	2230	21-Jun-48	García-Barriga & Hawkes	12884	US	
laudabilis [cuatrecasasii]	Colombia	Huila	Campo Alegre, vereda El Roble	2170	29-Aug-92	Llanos & Botache	2443	COL	
laudabilis [cuatrecasasii]	Colombia	Cauca-Huila	Moscopán, adelante de Santa Leticia	2400-2600	8-Sep-61	Uribe Uribe	3871	COL	
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	G	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	LOJA	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	MO	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	NEU	iso [2 sheets]
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	NY	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	QCA	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	QCNE	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	S	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	SBG	iso
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	13-Feb-01	Grant, J.R. & Struwe	4013	US	holo [3 sheets]
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	1-Nov-02	Grant, J.R. et al.	4250	MO	
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	1-Nov-02	Grant, J.R. et al.	4250	NEU	
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscara entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	1-Nov-02	Grant, J.R. et al.	4250	NY	

lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscaro entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	1-Nov-02	Grant, J.R. et al.	4250	SEL	
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus (Bombuscaro entrance), 5.7 km S of Zamora, then up to 1/2 hour walk into park	1030	1-Nov-02	Grant, J.R. et al.	4250	US	
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus, Romerillo, trail at limit of P.N. Podocarpus	1650-1700	14-Feb-90	Madsen & Knudsen	86854	AAU	[2 sheets]
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus, Romerillo, trail at limit of P.N. Podocarpus	1650-1700	14-Feb-90	Madsen & Knudsen	86854	LOJA	
lenae	Ecuador	Zamora-Chinchi	S and SE of Zamora	1000-1250	14-Jun-88	Øllgaard et al.	74846	AAU	[2 sheets]
lenae	Ecuador	Zamora-Chinchi	S and SE of Zamora	1000-1250	14-Jun-88	Øllgaard et al.	74846	LOJA	
lenae	Ecuador	Zamora-Chinchi	S and SE of Zamora	1000-1250	14-Jun-88	Øllgaard et al.	74846	QCA	* [2 sheets]
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus, Guardería Río Bombuscaro, Sendero al Mirador	1100	1-Jan-95	Palacios & Tirado	13301	MO	loan at Rutgers
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus, Guardería Río Bombuscaro, Sendero al Mirador	1100	1-Jan-95	Palacios & Tirado	13301	QCNE	
lenae	Ecuador	Zamora-Chinchi	P.N. Podocarpus, Guardería Río Bombuscaro, Sendero al Mirador	1100	1-Jan-95	Palacios & Tirado	13301	U	
loranthoides	Peru	Amazonas	Chachapoyas, Pische Guanuna			Matthews	1315	E	iso
loranthoides	Peru	Amazonas	Chachapoyas			Matthews	1315	K	holo
loranthoides	Peru	Amazonas	Chachapoyas			Matthews	1315	OXF	iso
loranthoides	Peru	Amazonas	Notes lost: doubtless collected on Mr. Sandeman's journey from Yurimagas to Cajamarca, via Moyobamba and Chachapoyas, see "A Forgotten River"		1-Aug-38	Sandeman	s.n.	K3	
loranthoides	Peru	Amazonas	Chachapoyas	2400-2500		Weberbauer	4411	G	lect [chlorantha]
loranthoides	Peru	Amazonas	Chachapoyas, Mozabamba		1-Jan-30	Williams	7586	F	
luctans	Colombia	Chocó	San José del Palmar, Cerro del Torrá	1700	25-Aug-88	Ramos et al.	1504	MO	
luctans	Colombia	Chocó	San José del Palmar, Cerro del Torrá	1700	25-Aug-88	Ramos et al.	1504	U	
luctans	Colombia	Chocó	San José del Palmar, Cerro del Torrá, vertiente oriental	2450	12-Aug-88	Silverstone-Sopkin et al.	4335	CUVC	(not on loan)
luctans	Colombia	Chocó	San José del Palmar, Cerro del Torrá, vertiente oriental	2450	12-Aug-88	Silverstone-Sopkin et al.	4335	U	
luctans	Colombia	Chocó	Cerro Panamá (adyacente al Cerro del Torrá, Cordillera de San Miguel)	2470-2510	18-Aug-88	Silverstone-Sopkin et al.	4535	CUVC	
luna-gentiana	Ecuador	Loja	Loja-Zamora	3800	1 Dec 1876	André	4513	F	
luna-gentiana	Ecuador	Loja	Loja-Zamora	3800	1 Dec 1876	André	4513	K	
luna-gentiana	Ecuador	Loja	Loja-Zamora	3800	1 Dec 1876	André	4513	NY	

luna-gentiana	Ecuador	Loja	Loja-Zamora	3500	1 Dec 1876	André	4536	K	
luna-gentiana	Ecuador	Loja	Loja-Zamora	3500	1 Dec 1876	André	4536	NY	
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, Sendero a Cajanuma-Laguna del Compadre-Mirador-Cajanuma	2750-3200	25-Feb-00	Cerón & Curso de Dendrología	40077	QAP	
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4027	LOJA	
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4027	NEU	
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4027	QCNE	
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	G	iso
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	LOJA	iso
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	NEU	iso
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	NY	iso
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	QCA	iso
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	QCNE	iso
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	14-Feb-01	Grant, J.R. & Struwe	4028	US	holo [2 sheets]
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	2-Nov-02	Grant, J.R. et al.	4274	NEU	
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	2-Nov-02	Grant, J.R. et al.	4274	NY	
luna-gentiana	Ecuador	Loja	Km 21 on road from Yangana- Cerro Toledo; trail from Cerro Toledo towards Numbala	3350	2-Nov-02	Grant, J.R. et al.	4274	US	
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, Cerro Toledo	2500-3400	30-Oct-89	Madsen	86290	AAU	[2 sheets]
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, Cerro Toledo	2500-3400	30-Oct-89	Madsen	86290	LOJA	
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, above the refuge of Cajanuma, beside the trail from 'Mirador' on the ridge eastward to the cordillera	3200	1-Nov-97	Matt	1	ER	
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, S of Loja	3050-3420	24-Feb-85	Øllgaard et al.	58114	AAU	
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, Yangana-Cerro Toledo	3100	26-Feb-85	Øllgaard et al.	58258	AAU	
luna-gentiana	Ecuador	Loja	P.N. Podocarpus, Yangana-Cerro Toledo	3100	26-Feb-85	Øllgaard et al.	58258	LOJA	

luna-gentiana	Ecuador	Loja	P.N. Podocarpus, Yangana-Cerro Toledo	3100	26-Feb-85	Øllgaard et al.	58258	QCA	
luteynii	Colombia	Valle	Km 18-20 carr. Cali-Buenaventura	1500-2000	28-Feb-88	Cabrera & van der Werff	15769	COL	
luteynii	Colombia	Valle	Km 18-20 carr. Cali-Buenaventura	1500-2000	28-Feb-88	Cabrera & van der Werff	15769	U	
luteynii	Colombia	Valle	Km 18-20 carr. Cali-Buenaventura	1500-2000	28-Feb-88	Cabrera & van der Werff	15772	COL	
luteynii	Colombia	Valle	Mun. Cali, Finca Zingara, km. 18 de la carretera Cali-Buenaventura, km 4 vía a Dapa, corregimiento de la Elvira, cordillera Occidental	1900	4-Jun-94	Giraldo-Gensini & Agredo	365	US/	not on loan
luteynii	Colombia	Cauca	P.N. Nat. Munchique, El Tambo	1950	25-Jul-93	González et al.	2832	COL	
luteynii	Colombia	Cauca	P.N. Nat. Munchique, El Tambo	1950	25-Jul-93	González et al.	2832	MA	
luteynii	Colombia	Cauca	La Gallera, Micay Valley	1900-2000	1-Jul-22	Killip	7940	GH	
luteynii	Colombia	Cauca	La Gallera, Micay Valley	1900-2000	1-Jul-22	Killip	7940	US	
luteynii	Colombia	Cauca	P.N. Nat. Munchique, El Sopadero	1950	28-Mar-79	Lobo	45	COL	
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	COL	iso
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	F	iso
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	HAM	iso
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	MO	iso
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	NY	holo
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	U	iso
luteynii	Colombia	Cauca	P.N. Nat. Munchique, km 50-55 along rd above Uribe	2256-1875	25-Apr-79	Luteyn et al.	7466	US	iso
luteynii	Colombia	Cauca	P.N. Nat. Munchique, a Nueva Granada	2280	28-Aug-93	Ruiz, N. et al.	196	COL	
luteynii	Colombia	Cauca	P.N. Nat. Munchique, a Nueva Granada	2280	28-Aug-93	Ruiz, N. et al.	196	MA	
luteynii	Colombia	Valle	San Antonio	2060-2100	20-Jan-86	Silverstone-Sopkin et al.	2119	CUVC	
luteynii	Colombia	Valle	San Antonio	2060-2100	20-Jan-86	Silverstone-Sopkin et al.	2119	U	[2 sheets]
luya	Peru	Amazonas	Luya, Camporredondo, Tullanga, Cerro Huicsocunga o Condorpuna	3310	6-Sep-89	Díaz, C. & Campos	3786	MO3	holo
luya	Peru	Amazonas	Luya, Camporredondo, Tullanga, Cerro Huicsocunga o Condorpuna	3310	6-Sep-89	Díaz, C. & Campos	3786	USM	iso
macrophylla	Colombia	Cauca	Novillenos Quindio		13 Mar 1876	André	2359	K	
macrophylla	Colombia	Cauca	Novillenos Quindio		13 Mar 1876	André	2359	NY	
macrophylla	Colombia		Ibagué			André	K1379	K	

macrophylla	Colombia		Ibagué			André	K1379	NY	
macrophylla	Colombia					André	L359	K	
macrophylla	Colombia	Antioquia	Medellín	2000	26-Dec-30	Archer	1088	US	[2 sheets] 1 sheet on loan
macrophylla	Colombia	Antioquia	Santa Elena	1500-1800	1-Jan-31	Archer	1276	US	
macrophylla	Colombia	Antioquia	Mun. de la Ceja, confluencia de las Quebradas Dantas y Santa Catalina	2200	18-Mar-95	Arias	263	MO	
macrophylla	Colombia	Antioquia	Mun. de la Ceja, confluencia de las Quebradas Dantas y Santa Catalina	2200	18-Mar-95	Arias	263	U	
macrophylla	Colombia	Antioquia	Boqueron de Sonson		31-Jul-68	Barkley, F.A.	38056 2B	GH	
macrophylla	Colombia	Antioquia	Santa Helena, camino entre medellín y Río Negro		16-Oct-47	Barkley, F.A. & Gutiérrez	1412	F	
macrophylla	Colombia	Antioquia	Santa Helena, camino entre medellín y Río Negro	2500	2-Oct-47	Barkley, F.A. et al.	24	F	
macrophylla	Colombia	Nariño	Ricaurte, Reserva Natural La Planada, 7 km de Chucunes	1800	25-Sep-89	Benavides	10821	NY	
macrophylla	Colombia	Cauca	Almaquer			Bonpland	2064	P	iso
macrophylla	Colombia	Cauca	Almaquer			Bonpland	?	P	iso
macrophylla	Colombia	Antioquia	Alto de Sta. Helena	2880	19-Jun-80	Callejas & Balslev	993	TEX	
macrophylla	Colombia	Antioquia	Medellín, Alto de Sta. Helena, 25 km E of Medellín	2800	20-Jun-80	Callejas & Balslev	1030	NY	
macrophylla	Colombia	Antioquia	18 km SW de Medellín en la vía a Santa Elena	2300	7-Jul-95	Callejas & Echeverri	11506	MO	
macrophylla	Colombia	Antioquia	18 km SW de Medellín en la vía a Santa Elena	2300	7-Jul-95	Callejas & Echeverri	11506	U	
macrophylla	Colombia	Antioquia	Caldas, Vereda La Corrala, 2 km N de Finca La Zarza	2440	31-Mar-87	Callejas & Marulanda	3364	NY	
macrophylla	Colombia	Antioquia	Mun. Jericó, 3 km O en la vía Jericó-Pueblorrico	1890-2050	29-Sep-89	Callejas et al.	8445	MO	
macrophylla	Colombia	Antioquia	Mun. Jericó, 3 km O en la vía Jericó-Pueblorrico	1890-2050	29-Sep-89	Callejas et al.	8445	NY	
macrophylla	Colombia	Antioquia	Mun. Jericó, 3 km O en la vía Jericó-Pueblorrico	1890-2050	29-Sep-89	Callejas et al.	8445	U	
macrophylla	Colombia	Risaralda	Mistrató, Alto o Paramillo de Mampay	1750	18-Sep-80	Camargo & Londoño	7367	COL	
macrophylla	Colombia	Valle	Along road between Cali and Buenaventura	1930-2000	27-Aug-76	Croat	38555	MO	
macrophylla	Panama	Bocas del Toro	Cerro Colorado, 6.5 km W of Chaimé	1630	7-Jul-88	Croat	69163	F	[2 sheets]
macrophylla	Colombia	Antioquia	Ituango, El Retiro	2570	24-Feb-93	Cuadros	4899	MO	
macrophylla	Colombia	Antioquia	Ituango, El Retiro	2570	24-Feb-93	Cuadros	4899	U	
macrophylla	Colombia	Antioquia	Ituango, camino entre El Retiro y Cerro Paramillo	2900-3200	25-Feb-93	Cuadros	5050	U	
macrophylla	Colombia	Antioquia	Rionegro		16-Dec-33	Daniel	135	US	
macrophylla	Colombia	Antioquia	La Ceja		1-Jul-36	Daniel	964	US	

macrophylla	Colombia	Chocó	San José del Palmar, vereda "El Tabor"	1450-1550	17-Jan-83	Díaz P.	3661	MO	
macrophylla	Colombia	Chocó	San José del Palmar, vereda "El Tabor"	1450-1550	17-Jan-83	Díaz P.	3661	COL	
macrophylla	Colombia	Cauca	Cali S. Antonio	2000	1-Mar-39	Dryander	2266	BM	
macrophylla	Colombia	Cauca	Cali S. Antonio	2000	1-Mar-39	Dryander	2266	F	
macrophylla	Colombia	Antioquia	La Zarza, hacia el Alto del Gallinazo		16-Feb-87	Escobar & Velásquez S.	7412	WIS	
macrophylla	Colombia	Antioquia	Caldas, Vereda La Clara, Finca La Oculta	1950	16-Feb-84	Escobar et al.	3865	NY	
macrophylla	Colombia	Antioquia	La Ceja	2500	17-Aug-63	Espinal	1257	COL	
macrophylla	Colombia	Antioquia	Alto Capiro, above Sonsón-Abejorral camino	2800	26-May-44	Ewan	15765	US	[2 sheets]
macrophylla	Panama	Darién	Cerro Pirre, top of peak just S of Pirre		10-Jul-77	Folsom	4509	MO	
macrophylla	Panama	Darién	Cerro Pirre, top of peak just S of Pirre		10-Jul-77	Folsom	4509	U	
macrophylla	Colombia	Antioquia	Mpio de Yarumal	2680	27-Oct-95	Fonnegra et al.	5878	MO	
macrophylla	Colombia	Antioquia	Mpio de Yarumal	2680	27-Oct-95	Fonnegra et al.	5878	TEX	
macrophylla	Colombia	Antioquia	Mpio de Yarumal	2680	27-Oct-95	Fonnegra et al.	5878	U	
macrophylla	Colombia	Caldas	Reserva "Alto de San Miguel" - nacimiento del Río Medellín	2000	4-Dec-96	Fonnegra et al.	6210	F2	[2 sheets]
macrophylla	Colombia	Valle	Carr. Ansermanuevo-San José del Palmar, km 60	1990	25-Aug-76	Forero et al.	2004	COL	[2 sheets]
macrophylla	Colombia	Valle	Carr. Ansermanuevo-San José del Palmar, km 60	1990	25-Aug-76	Forero et al.	2004	MO	
macrophylla	Colombia	Chocó	Carr. Ansermanuevo-San José del Palmar, 8.4 km del Alto del Galápagos	1600	19-Feb-77	Forero et al.	2983	COL	
macrophylla	Colombia	Chocó	Carr. Ansermanuevo-San José del Palmar, 8.4 km del Alto del Galápagos	1600	19-Feb-77	Forero et al.	2983	MO	
macrophylla	Colombia	Chocó	San José del Palmar, vereda "El Tabor", finca "El Tabor"	1650	17-Jan-83	Franco	1459	COL	[2 sheets]
macrophylla	Colombia	Chocó	San José del Palmar, vereda "El Tabor", finca "El Tabor"	1650	17-Jan-83	Franco	1459	F	
macrophylla	Panama	Darién	Top of Cerro Mali		17-Jan-75	Gentry & Mori	13655	MO	
macrophylla	Panama	Darién	Top of Cerro Mali		17-Jan-75	Gentry & Mori	13655	U	
macrophylla	Colombia	Chocó	Top of Serranía del Darién, Cerro Mali	1400	24-Jul-77	Gentry et al.	16975	GH	
macrophylla	Colombia	Chocó	Top of Serranía del Darién, Cerro Mali	1400	24-Jul-76	Gentry et al.	16975	MO	
macrophylla	Colombia	Chocó	Top of Serranía del Darién, Cerro Mali	1400	24-Jul-77	Gentry et al.	16975	U	
macrophylla	Colombia	Valle	Cali, km 18 carr. Cali-Buenaventura	1900-2100	6-Oct-85	Giraldo	29	CUVC	
macrophylla	Colombia	Valle	Cali, km 18 carr. Cali-Buenaventura	1900-2100	6-Oct-85	Giraldo	29	MO	
macrophylla	Colombia	Valle	Cali, km 18 carr. Cali-Buenaventura	1900-2100	6-Oct-85	Giraldo	29	U	
macrophylla	Colombia				18-Jan-09	Goudot	s.n.	P	
macrophylla	Colombia		Ibagué à Carthay, Ilegas del río Quindiu		18-Jan-09	Goudot	s.n.	P	

macrophylla	Colombia	Antioquia	Bosque de La Sierra	2800	18-Sep-47	Gutiérrez & Sierra	23	F	
macrophylla	Colombia	Antioquia	Las Palmas en la carr. Al Retiro	2500	27-May-48	Gutiérrez et al.	115	US	
macrophylla	Panama	Darién	NW slope of Summit Cerro Sapo, from Garachiné	1098	8-May-79	Hammel	7263	DUKE	
macrophylla	Panama	Darién	NW slope of Summit Cerro Sapo, from Garachiné	1098	8-May-79	Hammel	7263	MO	
macrophylla	Colombia	Chocó	Alturas de Nique and ridge to SW	1250-1500	31-Dec-80	Hartman	12472	MO	[2 sheets]
macrophylla	Colombia	Chocó	Alturas de Nique and ridge to SW	1250-1500	31-Dec-80	Hartman	12472	U	
macrophylla	Colombia	Antioquia	Las Palmas, E of Medellín	2500	7-Aug-55	Hatheway	1531	B	
macrophylla	Colombia	Antioquia	Entre Medellín y El Retiro	2500	1-Nov-45	Hodge	s.n.	US	
macrophylla	Colombia	Antioquia	Entre Medellín y Río Negro	2300-2500	1-Oct-45	Hodge	s.n.	US	
macrophylla	Colombia	Cauca	Habitat in American meridional			Humboldt	2067	B-Willd	microfiche only
macrophylla	Colombia	Cauca				Humboldt, Bonpland & Kunth	s.n.	P-HBK	microfiche only
macrophylla	Colombia	Risaralda	Sta. Rosa, camino de herradura entre Termales y Páramo de Sta. Rosa	2500	18-Aug-80	Idrobo et al.	9735	U	
macrophylla	Colombia	Antioquia	La Unión	2620	21-Aug-48	Johnson & F.A. Barkley	180778	US	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	BM	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	GH	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	MO	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	NY	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	S3	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	U	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	UC	
macrophylla	Colombia	Valle	San Antonio, W of Cali, near summit of Cordillera Occidental	1900-2350	26-Feb-39	Killip & Garcia	33650	US	[3 sheets] 2 of 3 sheets on loan
macrophylla	Colombia	Antioquia	Along road from Medellín to Rionegro	2700	17-Nov-48	Killip et al.	39849	US/	not on loan
macrophylla	Colombia	Valle	San Antonio, Cali			Lehmann	634	GH	
macrophylla	Colombia	Valle	San Antonio, Cali			Lehmann	634	L	
macrophylla	Colombia	Valle	San Antonio, Cali			Lehmann	634	NY	
macrophylla	Colombia	Valle	Cordillera von Cali	2000	16 Aug 1883	Lehmann	3029	BM	
macrophylla	Colombia	Valle	Cordillera von Cali	2000	16 Aug 1883	Lehmann	3029	G	

macrophylla	Colombia	Valle	Cordillera von Cali	2000	16 Aug 1883	Lehmann	3029	US	
macrophylla	Colombia	—	Inza	1800	—	Lehmann	6626	F	
macrophylla	Colombia	Cauca	El Causca, Juya	—	—	Lehmann	6626	US	
macrophylla	Colombia	—	—	—	—	Linden	164	BR	
macrophylla	Colombia	Chocó	Km 55 de la carr. Ansermanuevo-San José del Palmar	1700-1950	19-Mar-80	Lozano C. & Díaz	3208	COL	[2 sheets]
macrophylla	Colombia	Chocó	Km 55 de la carr. Ansermanuevo-San José del Palmar	1700-1950	19-Mar-80	Lozano C. & Díaz	3208	NY	
macrophylla	Colombia	Chocó	Km 55 de la carr. Ansermanuevo-San José del Palmar	1700-1950	19-Mar-80	Lozano C. & Díaz	3208	WIS	
macrophylla	Colombia	Valle	Cali-Loboguero road, km 19-20	1890	7-Mar-79	Luteyn & Lebrón-Luteyn	6960	COL	[2 sheets]
macrophylla	Colombia	Valle	Cali-Loboguero road, km 19-20	1890	7-Mar-79	Luteyn & Lebrón-Luteyn	6960	GH	
macrophylla	Colombia	Valle	Cali-Loboguero road, km 19-20	1890	7-Mar-79	Luteyn & Lebrón-Luteyn	6960	NY	[2 sheets]
macrophylla	Colombia	Valle	Cali-Loboguero road, km 19-20	1890	7-Mar-79	Luteyn & Lebrón-Luteyn	6960	U	
macrophylla	Colombia	Antioquia	Cerro del Padre Amaya, ca. 19 km W of Medellín	2440-2865	25-Mar-79	Luteyn & Lebrón-Luteyn	7092	CAS	
macrophylla	Colombia	Antioquia	Cerro del Padre Amaya, ca. 19 km W of Medellín	2440-2865	25-Mar-79	Luteyn & Lebrón-Luteyn	7092	GH	
macrophylla	Colombia	Antioquia	Cerro del Padre Amaya, ca. 19 km W of Medellín	2440-2865	25-Mar-79	Luteyn & Lebrón-Luteyn	7092	MO	
macrophylla	Colombia	Antioquia	Cerro del Padre Amaya, ca. 19 km W of Medellín	2440-2865	25-Mar-79	Luteyn & Lebrón-Luteyn	7092	NY	
macrophylla	Colombia	Antioquia	Cerro del Padre Amaya, ca. 19 km W of Medellín	2440-2865	25-Mar-79	Luteyn & Lebrón-Luteyn	7092	U	
macrophylla	Colombia	Antioquia	Medellín-Río Negro road, 2 km W of Santa Elena	2440	21-Mar-79	Luteyn et al.	7018	CAS	
macrophylla	Colombia	Antioquia	Medellín-Río Negro road, 2 km W of Santa Elena	2440	21-Mar-79	Luteyn et al.	7018	GH	
macrophylla	Colombia	Antioquia	Medellín-Río Negro road, 2 km W of Santa Elena	2440	21-Mar-79	Luteyn et al.	7018	MA*	
macrophylla	Colombia	Antioquia	Medellín-Río Negro road, 2 km W of Santa Elena	2440	21-Mar-79	Luteyn et al.	7018	MO	
macrophylla	Colombia	Antioquia	Medellín-Río Negro road, 2 km W of Santa Elena	2440	21-Mar-79	Luteyn et al.	7018	NY	
macrophylla	Colombia	Antioquia	Medellín-Río Negro road, 2 km W of Santa Elena	2440	21-Mar-79	Luteyn et al.	7018	U	
macrophylla	Panama	Darién	P.N. del Darién, Cerro Mali	1250-1500	20-Oct-87	Nevers et al.	8468	CAS	
macrophylla	Panama	Darién	P.N. del Darién, Cerro Mali	1250-1500	20-Oct-87	Nevers et al.	8468	MO	
macrophylla	Colombia	Antioquia	Santa Elena, camino entre Medellín y Rionegro	2500	2-Apr-49	Peláez et al.	500	C	
macrophylla	Colombia	Antioquia	Santa Elena, camino entre Medellín y Rionegro	2500	2-Apr-49	Peláez et al.	500	US	

macrophylla	Colombia	Bolívar/Antioquia	Páramo de Chaquiro	2800-3100	24-Feb-18	Pennell	4334	NY	
macrophylla	Colombia	Caldas	San Clemente	1800-2200	16-Sep-22	Pennell	10670	GH	
macrophylla	Colombia	Caldas	San Clemente	1800-2200	16-Sep-22	Pennell	10670	PH	
macrophylla	Colombia	Cauca	Cuestá de Tocatá, road from Buenaventura Calí	1500-1900	1-Dec-05	Pittier	736	US	[2 sheets] 1 sheet on loan
macrophylla	Colombia	Antioquia	Carr. que conduce de la Ceja a Medellín antes de las Palmas		2-Mar-68	Pract. Dendrologia	s.n.	CUVC	
macrophylla	Colombia	Antioquia	Parque Ecológico Piedras Blancas	2300-2400	8-Oct-94	Roldán et al.	2249	COL	
macrophylla	Colombia	Antioquia	de la Ceja a Sonsón		12-Apr-51	Romero-Castañeda	2371	AAU	
macrophylla	Colombia	Antioquia	de la Ceja a Sonsón		12-Apr-51	Romero-Castañeda	2371	COL	
macrophylla	Colombia	Valle	Cali	1830	1-Aug-39	Sandeman	142	K	
macrophylla	Colombia	Valle	Cali	1830	1-Aug-39	Sandeman	142	OXF	
macrophylla	Colombia	Risaralda	Apía, vereda "La Cumbre"	2285	24-Feb-83	Torres et al.	2195	COL	[3 sheets]
macrophylla	Colombia					Triana	164	BM	
macrophylla	Colombia					Triana	164	K	
macrophylla	Colombia				28-Jan-09	Triana	164	P	
macrophylla	Colombia	Cauca	Popayan, Paramillo de Almaguer	2700	27-Jan-09	Triana	s.n.	BM	
macrophylla	Colombia	Antioquia	Medellín, en el Alto de Santa Elena	2400	29-Dec-48	Uribe Uribe	1858	COL	[2 sheets]
macrophylla	Colombia	Antioquia	Medellín, en el Alto de Santa Elena	2400	29-Dec-48	Uribe Uribe	1858	U	
macrophylla	Colombia	Antioquia	Medellín, Cerro del Padre Amaya	2640	10-Mar-87	Zarucchi & Echeverry	4622	U	
macrophylla/varl erii?	Colombia	Antioquia	Frontino, km 22.6 of rd Nutibara-La Blanquita, Murri	1370	5-Nov-88	Zarucchi et al.	7167	COL	
macrophylla/varl erii?	Colombia	Antioquia	Frontino, km 22.6 of rd Nutibara-La Blanquita, Murri	1370	5-Nov-88	Zarucchi et al.	7167	HAM	
maguirei	Peru	Cuzco	Acajanaco, P.N. del Manu	3000-3100	7-May-90	Cano	3562	MA	
maguirei	Peru	Cuzco	Acajanaco, P.N. del Manu	3000-3100	7-May-90	Cano	3562	USM	
maguirei	Peru	Cuzco	Paucartambo, Rd between Cuzco and Pilcopata	3150	27-Sep-68	Maguire & Maguire	61569	GH	iso
maguirei	Peru	Cuzco	Paucartambo, Rd between Cuzco and Pilcopata	3150	27-Sep-68	Maguire & Maguire	61569	NY	holo [3 sheets]
maguirei	Peru	Cuzco	Paucartambo, Pillahuata, alrededores, Tres Cruces, 130 km de Cusco	2000	4-Apr-87	Núñez	7790	MO3	
maguirei	Peru	Cuzco	Paucartambo, Pillahuata, alrededores, Tres Cruces, 130 km de Cusco	2000	4-Apr-87	Núñez	7790	USM	
maguirei	Peru	Cuzco	Paucartambo, road from Paucartambo to Pilcopata, after turn-off to Tres Cruces	2800-3000	2-Oct-00	Weigend & Weigend	2000/ 242	NY	

maguirei	Peru	Cuzco	Paucartambo, Pillahuata, habitat de la Puna, Akonacu	3000	13-Dec-52	Woytkowski	s.n.	NY	
maguirei	Peru	Cuzco	Paucartambo, Pillahuata, habitat de la Puna, Akonacu	3000	13-Dec-52	Woytkowski	s.n.	USM	
marahuacae	Venezuela	Amazonas	Atabampo, Cerro Marahuaca	2555	26-Feb-85	Liesner	17994	NY	
marahuacae	Venezuela	Amazonas	Atabampo, Cerro Marahuaca	2700	12-Oct-88	Liesner	24651	MO2	holo
marahuacae	Venezuela	Amazonas	Atabampo, Cerro Marahuaca	2700	13-Oct-88	Liesner	24794	MO2	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2685	15-Jan-81	Maguire et al.	65598	NY	[2 sheets]
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2685	15-Jan-81	Maguire et al.	65598	VEN	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2800	26-Mar-83	Steyermark & Delascio	12907 9	MO2	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2800	26-Mar-83	Steyermark & Delascio	12907 9	VEN	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2580-2600	30-Mar-83	Steyermark & Delascio	12922 7	MO2	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2580-2600	30-Mar-83	Steyermark & Delascio	12922 7	VEN	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2480-2500	1-Feb-82	Steyermark et al.	12596 9	NY	
marahuacae	Venezuela	Amazonas	Cerro Marahuaca	2480-2500	1-Feb-82	Steyermark et al.	12596 9	VEN	
maryae	Colombia	Chocó	N ridge of Alto de Buey	500-1150	8-Aug-76	Gentry & Fallen	17369	COL	holo [2 sheets]
maryae	Colombia	Chocó	N ridge of Alto de Buey	500-1150	8-Aug-76	Gentry & Fallen	17369	U	iso [2 sheets]
micrantha	Ecuador	Zamora-Chinchipe	Estación Padmi, 4 km de Los Encuentros en la carretera Zamora-Gualaquiza	880	12-Jun-97	Aguirre et al.	71	LOJA X	
micrantha	Peru	Amazonas	Condorcanqui, Cordillera del Condor, Puesto de Vigilancia Alfonso Ugarte (PV3)	1300-1500	16-Jul-94	Beltrán & R. Foster	845	USM	
micrantha	Peru	Amazonas	Bagua, Imaza, Aguaruna Putuim (anexo Yamayakat)	760	24-Sep-94	Díaz, C. et al.	7227	U2	[2 sheets]
micrantha	Peru	Amazonas	Bagua, Imaza, Comunidad Aguaruna de Wanas (Km 92 Carretera Bagua-Imacita)	700-800	29-Aug-96	Díaz, C. et al.	8040	U2	
micrantha	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Guardería Bombuscara, ca. 6 km S de Zamora, camino que va desde el final del Carretero Zamora-Parque Nacional Podocarpus hasta la Guardería Bombuscara	1050	11-Jul-92	Freire-Fierro et al.	2284	QCA	*
micrantha	Ecuador	Zamora-Chinchipe	Miazi, Río Nangaritzta, hillside behind camp	930	27-Jul-93	Gentry	80502	QCNE	*
micrantha	Peru	San Martín	Pedro Ruíz-Moyobamba road, km 399	1410	29-Jan-01	Grant, J.R. & Rodriguez	3966	G	
micrantha	Peru	San Martín	Pedro Ruíz-Moyobamba road, km 399	1410	29-Jan-01	Grant, J.R. & Rodriguez	3966	HUT	

micrantha	Peru	San Martín	Pedro Ruíz-Moyobamba road, km 399	1410	29-Jan-01	Grant, J.R. & Rodríguez	3966	NEU	
micrantha	Peru	San Martín	Pedro Ruíz-Moyobamba road, km 399	1410	29-Jan-01	Grant, J.R. & Rodríguez	3966	US	
micrantha	Peru	Amazonas	Bagua, Imaza, Reg. Nororiental del Marañón, Kampaenza	320	23-Sep-94	Jaramillo et al.	468	HAM	
micrantha	Peru	Amazonas	Bagua, Imaza, Reg. Nororiental del Marañón, Kampaenza	320	23-Sep-94	Jaramillo et al.	468	MO3	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	F	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	G	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	GH	[2 sheets]
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	K	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	MO	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	NY	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	S	
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	US/	not on loan
micrantha	Peru	San Martín	Pumayacu, between Balsapuerto and Moyobamba	600-1200	1-Aug-33	Klug	3138	WIS	
micrantha	Ecuador	Zamora-Chinchi	El Padmi		6-Jun-95	Merino et al.	4526	LOJA	
micrantha	Ecuador	Zamora-Chinchi	P.N. Podocarpus, Guardería Bombuscara			Piguet	s.n.	NEU	
micrantha	Peru	San Martín	Tarapoto		1-Nov-82	Rios	1010	MO3	
micrantha	Peru	Amazonas	Bagua, Imaza, Aguaruna de Putuim	780	13-Jun-96	Rodríguez, E. et al.	1000	MO3	
micrantha	Peru	Amazonas	Bagua, Imaza, Aguaruna de Putuim	780	13-Jun-96	Rodríguez, E. et al.	1000	U2	
micrantha	Peru	Amazonas	Bagua, Imaza, Tayu Mujaji, Comunidad de Wawas	800	23-Oct-97	Rojas et al.	443	MO3	
micrantha	Peru	Amazonas	Bagua, Imaza, Tayu Mujaji, Comunidad de Wawas	800	23-Oct-97	Rojas et al.	443	U2	
micrantha	Ecuador	Zamora-Chinchi	P.N. Podocarpus, near park refugio, southwest of Zamora	1100	10-Jul-90	Rome et al.	1003	MO3	
micrantha	Peru	San Martín	Rioja, salida a Mashoyacu-Schacucaqui, Bosque de Protección Alto Mayo, Toma de Agua, Quebrada Cuchachi	1000	15-Jul-95	Sánchez Vega & Dillon	8048	F2	
micrantha	Peru	San Martín	Rioja, Pardo Miguel, El Afluente y la Marginal	1450	25-Jun-97	Sánchez Vega & Dillon	9038	F2	
micrantha	Peru	San Martín	Rioja, Pardo Miguel, El Afluente y la Marginal	1450	25-Jun-97	Sánchez Vega & Dillon	9038	U	
micrantha	Peru	San Martín	Rioja, Pardo Miguel, Centro Poblado Aguas Verdes, fila entre La Perla y Nuevo Edén	1350	25-Jun-98	Sánchez Vega et al.	9520	F2	
micrantha	Peru	San Martín	Rioja, Pardo Miguel, Centro Poblado Aguas Verdes, fila entre La Perla y Nuevo Edén	1350	25-Jun-98	Sánchez Vega et al.	9520	U	
micrantha	Peru	San Martín	Between Balsafuerte & Mayobamba		1-Aug-38	Sandeman	s.n.	BM	

micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	BM	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	BR	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	C	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	E	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	G	isolecto (G-BOIS)
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	G	isolecto (G-DC)
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	G	lect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	GH	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	GOET	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	K	isolecto [2 sheets]
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	LD	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	NY	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	OXF	isolecto [2 sheets]
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	P	isolect
micrantha	Peru	San Martín	Propre Tarapoto		1855-1856	Spruce	4618	W	isolecto [2 sheets]
micrantha	Peru	Loreto	Tarapoto, Cerro de Escaler	1300	1-Sep-04	Ule	6392	MG	
micrantha	Peru	Loreto			1-Sep-04	Ule	6392	G	
micrantha	Peru	Amazonas	Quebrado El Almendro	430-	8-Mar-98	van der Werff et al.	14518	MO3	
micrantha	Peru	Amazonas	Quebrado El Almendro	430-	8-Mar-98	van der Werff et al.	14518	U2	[2 sheets]
micrantha	Peru	Amazonas	Bagua, Imaza, Tayu Mujaji, Comunidad de Wawas	600	25-Oct-97	Vásquez et al.	24690	MO3	
micrantha	Peru	Amazonas	Bagua, Imaza, Tayu Mujaji, Comunidad de Wawas	600	25-Oct-97	Vásquez et al.	24690	U2	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Neblina Massif	1950	26-Feb-85	Boom et al.	5994	NY	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Neblina Massif	1950	26-Feb-85	Boom et al.	5994	INPA	

neblinae	Venezuela	Amazonas	Cerro de la Neblina, Neblina Massif	1950	26-Feb-85	Boom et al.	5994	U	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Neblina Massif	1950	26-Feb-85	Boom et al.	5994	US	
neblinae	Venezuela	Amazonas	Cerro de la Neblina		29-Nov-84	Croat	59402	VEN	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	16-Feb-84	Funk	6218	VEN	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	17-Feb-84	Funk	6282	VEN	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	16-Feb-84	Funk	6395	VEN	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, NE of Pico Phelps	2085-2100	28-Jan-85	Funk	6722	U	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, NE of Pico Phelps	2085-2100	28-Jan-85	Funk	6722	US	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, NE of Pico Phelps	2085-2100	28-Jan-85	Funk	6722	VEN	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, south face of Pico Phelps	1550-1650	12-Apr-84	Gentry & Stein	46586	MO3	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Rio Yatua	1700-2000	24-Dec-53	Maguire et al.	36836	NY	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Rio Yatua	1700-2000	24-Dec-53	Maguire et al.	36836	US	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Río Yatua	1700-2000	6-Jan-54	Maguire et al.	37103	NY	holo
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Río Yatua	1700-2000	6-Jan-54	Maguire et al.	37103	US	iso
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Río Yatua	1700-2000	10-Jan-54	Maguire et al.	37189	MO	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Río Yatua	1700-2000	10-Jan-54	Maguire et al.	37189	NY	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Rio Yatua	1200-2200	14-Dec-57	Maguire et al.	42401	F	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Rio Yatua	1200-2200	14-Dec-57	Maguire et al.	42401	K	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Rio Yatua	1200-2200	14-Dec-57	Maguire et al.	42401	NY	
neblinae	Venezuela	Amazonas	Cerro de la Neblina, Rio Yatua	1200-2200	14-Dec-57	Maguire et al.	42401	US	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	1730-1850	30-Jan-85	Nee, M.	30643	NY	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	1730-1850	30-Jan-85	Nee, M.	30643	U	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	1730-1850	30-Jan-85	Nee, M.	30643	VEN	
neblinae	Venezuela	Amazonas	26 km ENE of Neblina Base Camp	2000	15-Apr-84	Plowman & Thomas	13630	F	
neblinae	Venezuela	Amazonas	26 km ENE of Neblina Base Camp	2000	15-Apr-84	Plowman & Thomas	13630	U	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	30-Jan-85	Renner	2025	AAU	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	30-Jan-85	Renner	2025	B	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	30-Jan-85	Renner	2025	U	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	30-Jan-85	Renner	2025	US/	not on loan
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2085-2100	30-Jan-85	Renner	2025	US4	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	2100	15-Apr-84	Stein & Genty	1530	VEN	
neblinae	Venezuela	Amazonas	Cerro de la Neblina	1900-2000	17-Apr-84	Stein & Genty	1589	U	

neblinae	Venezuela	Amazonas	Cerro de la Neblina, Planicie de Zuloaga, Río Titiricca	2300	10-Oct-70	Steyermark	10387 5	NY	[2 sheets]
neillii	Ecuador	Zamora-Chinchipe	W of Tikimints, valley of Río Coangas, Ijiach Naimt	2000	20-Mar-01	Berry & Neill	7630	MO	loan at Rutgers
neillii	Ecuador	Zamora-Chinchipe	W of Tikimints, valley of Río Coangas, Ijiach Naimt	2000	20-Mar-01	Berry & Neill	7640	MO	loan at Rutgers
neillii	Ecuador	Zamora-Chinchipe	W of Tikimints, valley of Río Coangas, Ijiach Naimt	2000	20-Mar-01	Berry & Neill	7665	CHRB	
neillii	Ecuador	Zamora-Chinchipe	Nangaritza, Cordillera de Nanguipa, Cerro Colorado, 8 km SSE of Nambija, 20 km ESE of Zamora	2700	18-Feb-02	Neill et al.	13758	LOJA X	
neillii	Ecuador	Zamora-Chinchipe	Nangaritza, Cordillera de Nanguipa, Cerro Colorado, 8 km SSE of Nambija, 20 km ESE of Zamora	2700	18-Feb-02	Neill et al.	13758	QCNE	
nicotianifolia	Colombia	Cundinamarca	San Miguel, S of Sibaté on road to Fusagasugá, between km markers 35 and 36	2600	10-May-72	Barclay, A.S. et al.	3402	COL	[2 sheets]
nicotianifolia	Colombia	Cundinamarca	San Miguel, S of Sibaté on road to Fusagasugá, between km markers 35 and 36	2600	10-May-72	Barclay, A.S. et al.	3402	NA	
nicotianifolia	Colombia	Cundinamarca	San Miguel, S of Sibaté on road to Fusagasugá, between km markers 35 and 36	2600	10-May-72	Barclay, A.S. et al.	3402	US	
nicotianifolia	Colombia	Cundinamarca	Entre San Miguel y Aguadita	1980-2360	21-Apr-46	García-Barriga	12061	COL	
nicotianifolia	Colombia	Cundinamarca	Entre San Miguel y Aguadita	1980-2360	21-Apr-46	García-Barriga	12061	US	
nicotianifolia	Colombia	Cundinamarca	Carr. a Fusagasugá entre Agua Bonita y la Aguadita	2300	12-Jan-68	García-Barriga & Stout	18875	COL	
nicotianifolia	Colombia	Cundinamarca	Salitre, Taguaté Valley, 6 km w of Gutiérrez, 45 km S of Bogotá	2625	23-Jul-44	Grant, M.L.	9649	NA	
nicotianifolia	Colombia	Cundinamarca	Salitre, Taguaté Valley, 6 km w of Gutiérrez, 45 km S of Bogotá	2625	23-Jul-44	Grant, M.L.	9649	NY	
nicotianifolia	Colombia	Cundinamarca	Salitre, Taguaté Valley, 6 km w of Gutiérrez, 45 km S of Bogotá	2625	23-Jul-44	Grant, M.L.	9649	US	
nicotianifolia	Colombia	Cundinamarca	Salitre, Taguaté Valley, 6 km w of Gutiérrez, 45 km S of Bogotá	2625	23-Jul-44	Grant, M.L.	9649	WIS	[2 sheets]
nicotianifolia	Colombia	Cundinamarca	N side of Quebrada San Roque, Río Blanco Valley, 10 km W of Gutiérrez, 45 km S of Bogotá	2725	27-Jul-44	Grant, M.L.	9716	NA	[2 sheets]
nicotianifolia	Colombia	Cundinamarca	Mun. de Bojacá, vereda de San Antonio, "La Merced", próximo a la carretera Mosquera-Tena	2500-2700	16-Nov-64	Lozano C. & Torres-R.	201	AAU	
nicotianifolia	Colombia	Cundinamarca	40 km SW of Bogotá	2600	24-Jan-49	Mason	13770	UC	
nicotianifolia	Colombia	Cundinamarca	40 km SW of Bogotá	2600	24-Jan-49	Mason	13770	US/	not on loan
nicotianifolia	Colombia	Cundinamarca	Mun. de Sibaté, Vereda de San Fortunato		8-Mar-72	Romero-Castañeda	11367	GH	
nicotianifolia	Colombia	Cundinamarca	Mun. de Sibaté, Vereda de San Fortunato		8-Mar-72	Romero-Castañeda	11367	MO	
nicotianifolia	Colombia	Cundinamarca	Bojacá	2800	16-Mar-49	Schneider	801	S3	
nicotianifolia	Colombia	Cundinamarca	Macizo montañoso al sur de Santandercito, Laguna de Catarnica	2050	6-Sep-58	Uribe Uribe	3193	COL	
nicotianifolia	Colombia	Cundinamarca	Macizo montañoso al sur de Santandercito, Laguna de Catarnica	2050	6-Sep-58	Uribe Uribe	3193	US	[2 sheets]
nicotianifolia	Colombia	Cundinamarca	Salto de Tequendama, monte de El Ermitaño	2300	14-Sep-59	Uribe Uribe	3367	COL	

nicotianifolia	Colombia	Cundinamarca	Salto de Tequendama, monte de El Ermitaño	2300	14-Sep-59	Uribe Uribe	3367	MO	
nicotianifolia	Colombia	Cundinamarca	Salto de Tequendama, monte de El Ermitaño	2300	14-Sep-59	Uribe Uribe	3367	US/	not on loan
nicotianifolia	Colombia	Cundinamarca	Abajo del Salto de Tequendama, montes detrás del cerro de El Ermitaño	2400	4-Oct-64	Uribe Uribe	4976	NY	
nicotianifolia	Colombia	Cundinamarca	Salto de Tequendama, La Vencedora	2100	1-Mar-66	Uribe Uribe	5577	US	holo
nicotianifolia	Colombia	Cundinamarca	San Miguel, on road from Bogotá to Girardot		8-Oct-72	Weaver	2634	GH	
nicotianifolia	Colombia	Cundinamarca	San Miguel, on road from Bogotá to Girardot		8-Oct-72	Weaver	2634	MO	
nicotianifolia	Colombia	Cundinamarca	Remnant forests in vicinity of San Miguel	3000	12-Sep-68	Weaver & Kennedy	1548	CAS	
nicotianifolia	Colombia	Cundinamarca	Remnant forests in vicinity of San Miguel	3000	12-Sep-68	Weaver & Kennedy	1548	F	
nicotianifolia	Colombia	Cundinamarca	Remnant forests in vicinity of San Miguel	3000	12-Sep-68	Weaver & Kennedy	1548	MO	
nicotianifolia	Colombia	Cundinamarca	Remnant forests in vicinity of San Miguel	3000	12-Sep-68	Weaver & Kennedy	1548	NY	
noctiluca	Ecuador	Loja	15 km S of Yangana	2500	24-Sep-83	Brandbyge	42299	AAU	
noctiluca	Ecuador	Loja	15 km S of Yangana	2500	24-Sep-83	Brandbyge	42299	Q	
noctiluca	Ecuador	Loja	Nudo de Guagrauma, Loma de Oro	3000	2-Aug-44	Camp	275	NY	
noctiluca	Peru	Cajamarca	San Ignacio, Tabaconas, Santuario Nacional Tabaconas-Namballe, Quebrada Chichilapa grande	2600-2800	12-Nov-98	Campos et al.	5638	NEU	
noctiluca	Ecuador	Loja	P.N. Podocarpus, Sendero a Cajanuma	2550-2700	23-Feb-00	Cerón & Curso de Dendrología	40065	QAP	
noctiluca	Ecuador	Loja	Saraguro, along road between Cuenca and Loja	2875	4-Mar-92	Croat	72660	MO	
noctiluca	Ecuador	Loja	Saraguro, along road between Cuenca and Loja	2875	4-Mar-92	Croat	72660	QCNE	
noctiluca	Peru	Cajamarca	San Ignacio, Tabaconas, Santuario Nacional Tabaconas-Namballe, Quebrada Chichilapa grande	2200-2300	15-Nov-98	Díaz, C. et al.	10036	NEU	
noctiluca	Ecuador	Loja	Loja-Zamora 12 km from Loja	2600	1-Oct-88	Ellemann	66529	AAU	
noctiluca	Ecuador	Loja	Loja-Zamora 12 km from Loja	2600	1-Oct-88	Ellemann	66529	LOJA	
noctiluca	Ecuador	Loja	Loja-Zamora 12 km from Loja	2600	1-Oct-88	Ellemann	66529	QCA	*
noctiluca	Ecuador	Loja	Loja-Zamora 12 km from Loja	2400-2600	17-Nov-88	Ellemann	75387	AAU	
noctiluca	Ecuador	Loja	Loja-Zamora 12 km from Loja	2400-2600	17-Nov-88	Ellemann	75387	LOJA	
noctiluca	Ecuador	Loja	12 km NW of Saraguro	2800	9-Mar-89	Ellemann	91665	AAU	
noctiluca	Ecuador	Loja	12 km NW of Saraguro	2800	9-Mar-89	Ellemann	91665	LOJA	
noctiluca	Ecuador	Loja	12 km NW of Saraguro	2800	9-Mar-89	Ellemann	91665	QCA	*
noctiluca	Ecuador	Loja	Namandu	2400-2500	18-Apr-46	Espinosa, R.	198	LOJA	
noctiluca	Ecuador	Loja	Namandu	2400-2500	18-Apr-46	Espinosa, R.	198	US	
noctiluca	Peru	Cajamarca	Jaen, E slope of Paso de Huascarai, head of Quebrada Granadillas, 15 km SE of Huancabamba	3000	10-Jun-47	Fosberg	27857	MO3	

noctiluca	Ecuador	Zamora-Chinchi	Quebrada Honda, cuesta carrizal	2520	26-Sep-96	Garmendia & Igual	1464	QCNE	
noctiluca	Ecuador	Loja	Quedrada Honda, en la carretera Yangana-Valladolid	2470	9-Oct-95	Garmendia & Paredes	639	LOJA X	
noctiluca	Ecuador	Loja	Carr. Yangana-Valladolid, antes del refugio de Quebrada Honda	2720	9-Oct-95	Garmendia & Paredes	688	QCNE	*
noctiluca	Ecuador	Loja	8 km E of Loja on Loja-Zamora road		31-Oct-02	Grant, J.R.	4245	NEU	
noctiluca	Ecuador	Loja	8 km E of Loja on Loja-Zamora road		31-Oct-02	Grant, J.R.	4245	NY	
noctiluca	Ecuador	Loja	8 km E of Loja on Loja-Zamora road		31-Oct-02	Grant, J.R.	4245	US	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 15 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3977	LOJA	iso
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 15 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3977	NY	iso
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 15 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3977	QCA	iso
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 15 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3977	QCNE	iso
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 15 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3977	US	[2 sheets]
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 20 km S of Yangana	2485	10-Feb-01	Grant, J.R. & Struwe	3979	LOJA	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 20 km S of Yangana	2485	10-Feb-01	Grant, J.R. & Struwe	3979	NY	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 20 km S of Yangana	2485	10-Feb-01	Grant, J.R. & Struwe	3979	QCA	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 20 km S of Yangana	2485	10-Feb-01	Grant, J.R. & Struwe	3979	QCNE	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 20 km S of Yangana	2485	10-Feb-01	Grant, J.R. & Struwe	3979	S	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, 20 km S of Yangana	2485	10-Feb-01	Grant, J.R. & Struwe	3979	US	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	LOJA	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	MO	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	NEU	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	NY	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	QCA	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	QCNE	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	S	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3992	US	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3993	LOJA	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3993	NEU	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3993	QCNE	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3994	LOJA	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3994	NEU	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3994	QCNE	

noctiluca	Ecuador	Loja	Nudo de Sabanilla, between 20-28.8 km S of Yangana	2550	11-Feb-01	Grant, J.R. & Struwe	3994	US	[2 sheets]
noctiluca	Ecuador	Loja	28.8 km S of Yangana	2560	11-Feb-01	Grant, J.R. & Struwe	3996	LOJA	
noctiluca	Ecuador	Loja	28.8 km S of Yangana	2560	11-Feb-01	Grant, J.R. & Struwe	3996	QCNE	
noctiluca	Ecuador	Loja	28.8 km S of Yangana	2560	11-Feb-01	Grant, J.R. & Struwe	3997	LOJA	
noctiluca	Ecuador	Loja	28.8 km S of Yangana	2560	11-Feb-01	Grant, J.R. & Struwe	3997	QCNE	
noctiluca	Ecuador	Loja	28.8 km S of Yangana	2560	11-Feb-01	Grant, J.R. & Struwe	3997	US	[2 sheets]
noctiluca	Ecuador	Loja	10 km from Loja on road to Zamora	2550	13-Feb-01	Grant, J.R. & Struwe	4003	LOJA	
noctiluca	Ecuador	Loja	10 km from Loja on road to Zamora	2550	13-Feb-01	Grant, J.R. & Struwe	4003	NEU	
noctiluca	Ecuador	Loja	10 km from Loja on road to Zamora	2550	13-Feb-01	Grant, J.R. & Struwe	4003	NY	
noctiluca	Ecuador	Loja	10 km from Loja on road to Zamora	2550	13-Feb-01	Grant, J.R. & Struwe	4003	QCA	
noctiluca	Ecuador	Loja	10 km from Loja on road to Zamora	2550	13-Feb-01	Grant, J.R. & Struwe	4003	QCNE	
noctiluca	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4021	LOJA	
noctiluca	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4021	NEU	
noctiluca	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4021	NY	
noctiluca	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4021	QCA	
noctiluca	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4021	QCNE	
noctiluca	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4062	LOJA	
noctiluca	Ecuador	Zamora-Chinchi	P.N. Podocarpus (San Francisco entrance); trail leading west from San Francisco	2100	16-Feb-01	Grant, J.R. & Struwe	4062	QCNE	
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	G	
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	LOJA	
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	NEU	[3 sheets]
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	NY	
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	QCA	
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	QCNE	
noctiluca	Ecuador	Loja	From Loja-Saraguro road, then 200 m on road towards Fierro Urco	2900	18-Feb-01	Grant, J.R. & Struwe	4074	US	[2 sheets]
noctiluca	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	2-Nov-02	Grant, J.R. et al.	4269	NEU	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4275	MO	

noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4275	NEU	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4275	NY	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4275	SEL	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4275	US	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4276	MO	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4276	NEU	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4276	NY	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4276	SEL	
noctiluca	Ecuador	Loja	Km 10 on road from Yangana- Cerro Toledo		2-Nov-02	Grant, J.R. et al.	4276	US	
noctiluca	Ecuador	Loja	30.1 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4295	NEU	
noctiluca	Ecuador	Loja	30.1 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4295	NY	
noctiluca	Ecuador	Loja	30.1 km past Yangana towards Valladolid		5-Nov-02	Grant, J.R. et al.	4295	US	
noctiluca	Ecuador	Loja	Road between Loja and Zamora	2600-2700	20-Mar-72	Harling	11322	GB	
noctiluca	Ecuador	Zamora-Chinchi	Above Valladolid on rd to Yangana	2700	2-Feb-85	Harling & Andersson	21462	GB	
noctiluca	Ecuador	Loja	Loma de Loro, 6 km S of Saraguro on road to Loja	3200	11-Feb-85	Harling & Andersson	21910	GB	
noctiluca	Ecuador	Loja	Loma de Loro, 6 km S of Saraguro on road to Loja	3200	11-Feb-85	Harling & Andersson	21910	QCA	*
noctiluca	Ecuador	Loja	W slope of Nudo de Sabanilla	2500	3-Apr-85	Harling & Andersson	23594	GB	
noctiluca	Ecuador	Loja	W slope of Nudo de Sabanilla	2500	3-Apr-85	Harling & Andersson	23594	QCA	*
noctiluca	Ecuador	Zamora-Chinchi	Nudo de Sabanilla - Valladolid	2400-2600	12-Feb-93	Harling & Ståhl	26325	GB	
noctiluca	Ecuador	Zamora-Chinchi	Nudo de Sabanilla - Valladolid	2400-2600	12-Feb-93	Harling & Ståhl	26325	MO3	
noctiluca	Ecuador	Zamora-Chinchi	Nudo de Sabanilla - Valladolid	2400-2600	12-Feb-93	Harling & Ståhl	26325	S	
noctiluca	Ecuador	Morona-Santiago	Sigsig-Gualaquiza		9-Apr-68	Harling et al.	8115	GB	
noctiluca	Ecuador	Loja	Loja-Zamora rd	2700-2900	8-Nov-82	Harling et al.	20386	GB	
noctiluca	Ecuador	Loja	Nudo de Sabanilla, N part	2400-2600	10-Nov-82	Harling et al.	20558	GB	
noctiluca	Ecuador	Loja	Carr. Loja-La Palma	2850	27-Dec-88	Jaramillo	10514	QCA	* [2 sheets]
noctiluca	Ecuador	Azuay	Km 74 de Cuenca	2790	6-Aug-86	Jaramillo et al.	8866B	AAU	
noctiluca	Ecuador	Azuay	Km 74 de Cuenca	2790	6-Aug-86	Jaramillo et al.	8866B	GB	
noctiluca	Ecuador	Azuay	Km 74 de Cuenca	2790	6-Aug-86	Jaramillo et al.	8866B	QCA	
noctiluca	Ecuador	Loja	Km 10-15 Yangana-Toledo road	3000-3300	1-Aug-86	Jørgensen	61374 B	AAU	
noctiluca	Ecuador	Loja	Km 10-15 Yangana-Toledo road	3000-3300	1-Aug-86	Jørgensen	61374 B	QCA	*
noctiluca	Ecuador	Loja	Km 10-15 Yangana-Toledo road	3000-3300	1-Aug-86	Jørgensen	61374	QCNE	

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noctiluca	Ecuador	Loja	Loja-Saraguro, km 58, turnoff towards Fierro Urco	3000	21-Apr-94	Jørgensen et al.	499	HAM	
noctiluca	Ecuador	Loja	Loja-Saraguro, km 58, turnoff towards Fierro Urco	3000	21-Apr-94	Jørgensen et al.	499	LOJA	
noctiluca	Ecuador	Loja	Loja-Saraguro, km 58, turnoff towards Fierro Urco	3000	21-Apr-94	Jørgensen et al.	499	MO	
noctiluca	Ecuador	Loja	Loja-Saraguro, km 58, turnoff towards Fierro Urco	3000	21-Apr-94	Jørgensen et al.	499	QCA	*
noctiluca	Ecuador	Loja	Loja-Saraguro, km 58, turnoff towards Fierro Urco	3000	21-Apr-94	Jørgensen et al.	499	QCNE	
noctiluca	Ecuador	Loja	Cerro Uritusinga, Loja-La Palma, km 18-20	2910-3000	30-Nov-94	Jørgensen et al.	1050	HAM	
noctiluca	Ecuador	Loja	Cerro Uritusinga, Loja-La Palma, km 18-20	2910-3000	30-Nov-94	Jørgensen et al.	1050	LOJA	
noctiluca	Ecuador	Loja	Cerro Uritusinga, Loja-La Palma, km 18-20	2910-3000	30-Nov-94	Jørgensen et al.	1050	MO	
noctiluca	Ecuador	Loja	Cerro Uritusinga, Loja-La Palma, km 18-20	2910-3000	30-Nov-94	Jørgensen et al.	1050	QCA	*
noctiluca	Ecuador	Loja	Cerro Uritusinga, Loja-La Palma, km 18-20	2910-3000	30-Nov-94	Jørgensen et al.	1050	QCNE	
noctiluca	Ecuador	Azuay	Road Sigsig-Gualaquiza, km 25.6	3200-3330	11-Jan-00	Jørgensen et al.	1832	CHRB	
noctiluca	Ecuador	Azuay	Road Sigsig-Gualaquiza, km 25.6	3200-3330	11-Jan-00	Jørgensen et al.	1832	QCNE	
noctiluca	Ecuador	Loja	4 km S of Loja	2600	17-Apr-66	Knight	494	WIS	
noctiluca	Ecuador	Loja	Slopes of Cerro Villonaco	2850	6-Mar-66	Knight	517	WIS	
noctiluca	Ecuador	Loja	Road Loja-Zamora, km 10	2600	24-Oct-96	Lewis	2709	LOJA	
noctiluca	Ecuador	Loja	Road Loja-Zamora, km 10	2600	24-Oct-96	Lewis	2709	QCNE	*
noctiluca	Ecuador	Loja	Road Loja-Saraguro, km 26, bosque Cofragia	2750	17-Jan-97	Lewis et al.	2930	LOJA	
noctiluca	Ecuador	Loja	Road Loja-Saraguro, km 26, bosque Cofragia	2750	17-Jan-97	Lewis et al.	2930	QCNE	*
noctiluca	Ecuador	Loja	Road between Loja and Zamora	2500-2750	31-Dec-78	Luteyn et al.	6542	AAU	
noctiluca	Ecuador	Loja	Road between Loja and Zamora	2500-2750	31-Dec-78	Luteyn et al.	6542	CAS	
noctiluca	Ecuador	Loja	Road between Loja and Zamora	2500-2750	31-Dec-78	Luteyn et al.	6542	GH	
noctiluca	Ecuador	Loja	Road between Loja and Zamora	2500-2750	31-Dec-78	Luteyn et al.	6542	NY	
noctiluca	Ecuador	Loja	Road between Loja and Zamora	2500-2750	31-Dec-78	Luteyn et al.	6542	QCA	*
noctiluca	Ecuador	Loja	Cordillera de Sabanilla, ca. 15 km S of Yangana	2480	30-Dec-80	Madison & Besse	7498	QCA	
noctiluca	Ecuador	Loja	Cordillera de Sabanilla, ca. 15 km S of Yangana	2480	30-Dec-80	Madison & Besse	7498	SEL	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2550	2-Dec-88	Madsen et al.	75753	AAU	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2550	2-Dec-88	Madsen et al.	75753	LOJA	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2550	2-Dec-88	Madsen et al.	75753	QCA	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2550	2-Dec-88	Madsen et al.	75753	QCNE	
noctiluca	Ecuador	Loja	P.N. Podocarpus, about 6.5 km from the park entrance to the refuge Cajanuma	2500	1-Nov-98	Matt	4	ER	
noctiluca	Ecuador	Loja	P.N. Podocarpus, about 6.5 km from the park entrance to the	2500	1-Nov-98	Matt	5	ER	

			refuge Cajanuma						
noctiluca	Ecuador	Loja	P.N. Podocarpus, about 6.5 km from the park entrance to the refuge Cajanuma	2500	1-Nov-98	Matt	6	ER	
noctiluca	Ecuador	Loja	Beside the road from Loja to Zamora, still on the eastern slope of the cordillera, 2 km before the former rubbish dump of Loja	2550	1-Jan-98	Matt	7	ER	
noctiluca	Ecuador	Loja	Beside the road from Loja to Zamora, still on the eastern slope of the cordillera, 2 km before the former rubbish dump of Loja	2550	1-Jan-98	Matt	8	ER	
noctiluca	Ecuador	Loja	Beside the road from Loja to Zamora, still on the eastern slope of the cordillera, 2 km before the former rubbish dump of Loja	2550	1-Jan-98	Matt	9	ER	
noctiluca	Ecuador	Loja	Beside the road from Loja to Zamora, still on the eastern slope of the cordillera, 2 km before the former rubbish dump of Loja	2550	1-Jan-98	Matt	10	ER	
noctiluca	Ecuador	Loja	Beside the road from Loja to Zamora, still on the eastern slope of the cordillera, 2 km before the former rubbish dump of Loja	2550	1-Jan-98	Matt	11	ER	
noctiluca	Ecuador	Loja	Amaluza, 5-10 km ENE of the village (Pasaje del Romerillo)	2400-2700	23-Sep-76	Øllgaard & Balslev	9740	AAU	
noctiluca	Ecuador	Loja	Amaluza, 5-10 km ENE of the village (Pasaje del Romerillo)	2400-2700	23-Sep-76	Øllgaard & Balslev	9740	NY	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2640-2770	16-Feb-89	Øllgaard et al.	90616	AAU	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2640-2770	16-Feb-89	Øllgaard et al.	90616	LOJA	
noctiluca	Ecuador	Zamora-Chinchipe	P.N. Podocarpus, Yangana-Valladolid Rd.	2640-2770	16-Feb-89	Øllgaard et al.	90616	QCA	*
noctiluca	Ecuador	Loja	Carr. Valladolid-Loja km 4-21	1900-2700	18-Feb-93	Romoleroux et al.	1536	QCA	*
noctiluca	Ecuador	Loja	Carr. Valladolid-Loja km 4-21	1900-2700	18-Feb-93	Romoleroux et al.	1536	QCNE	
noctiluca	Ecuador	Loja	NW slopes of Nudo de Sabanilla, around Tambo Cachiyacu	2000-3000	19-Oct-43	Steyermark	54812	F	
normae	Peru	Cuzco	Convención, Lucumaya: Choquellohuanca	1700	28-Apr-44	Vargas, C.	4196	CUZ	holo
normae	Peru	Cuzco	Convención, Lucumaya: Choquellohuanca	1700	28-Apr-44	Vargas, C.	4196	MO	iso
normae	Peru	Cuzco	Convención, Lucumaya: Choquellohuanca	1700	28-Apr-44	Vargas, C.	4196	US	iso
normae	Peru	Cuzco	Convención, Hda. Potrero, Garavito	2000	13-May-60	Vargas, C.	13206	CUZ	
normae	Peru	Cuzco	Convención, Hda. Potrero, Garavito	2000	13-May-60	Vargas, C.	13206	MO3	
normae	Peru	Cuzco	Paucartambo, Pillawata-Perolninocc	2800	9-Apr-69	Vargas, C.	21415	CUZ	
normae	Peru	Cuzco	Calca, Lares Valley between Huallhuayoj and Calca		9-Mar-29	Weberbauer	7921	F	[3 sheets]
normae	Peru	Cuzco	Calca, Lares Valley between Huallhuayoj and Calca		9-Mar-29	Weberbauer	7921	GH	
normae	Peru	Cuzco	Calca, Lares Valley between Huallhuayoj and Calca		9-Mar-29	Weberbauer	7921	NY	[2 sheets]
normae	Peru	Cuzco	Calca, Lares Valley between Huallhuayoj and Calca		9-Mar-29	Weberbauer	7921	US	
normae	Peru	Cuzco	Calca, Lares Valley between Huallhuayoj and Calca		9-Mar-29	Weberbauer	7921	US/	not on loan
obnubilata	Peru	Huánuco	Huánuco, trocha entre Carpish y Pati		15-Jan-87	Díaz, C. & Baldéon	2256	HAM	
obnubilata	Peru	Huánuco	Huánuco, trocha entre Carpish y Pati		15-Jan-87	Díaz, C. & Baldéon	2256	NEU	
obnubilata	Peru	Huánuco	Huánuco, trocha entre Carpish y Pati		15-Jan-87	Díaz, C. & Baldéon	2256	U	

obnubilata	Peru	Huánuco	Pampayacu		22-Jan-27	Kanehira	292	GH	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço, Pico do Itambé	1310	13-Feb-72	Anderson et al.	35964	AAU	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço, Pico do Itambé	1310	13-Feb-72	Anderson et al.	35964	MO	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço, Pico do Itambé	1310	13-Feb-72	Anderson et al.	35964	NY	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço, Pico do Itambé	1310	13-Feb-72	Anderson et al.	35964	S3	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço, Serra do Cipó	1200	20-Feb-72	Anderson et al.	36353	NY	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó	100-1320	9-Feb-91	Arbo et al.	4752	C	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 128 Belo Horizonte-Conceição do Mato Dentro		11-Jan-81	Castro & Sajo	6957	NEU	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 128 Belo Horizonte-Conceição do Mato Dentro		11-Jan-81	Castro & Sajo	6957	SP	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 128 Belo Horizonte-Conceição do Mato Dentro		11-Jan-81	Castro & Sajo	6957	SPF	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 128 Belo Horizonte-Conceição do Mato Dentro		11-Jan-81	Castro & Sajo	6957	U	
obtusifolia	Brazil	Minas Gerais	Serra do Piedade		17-Jan-09	Claussen	352	P	
obtusifolia	Brazil	Minas Gerais			17-Jan-09	Claussen	s.n.	P	[2 sheets]
obtusifolia	Brazil	Minas Gerais	Serra do Piedade		16-Jan-09	Claussen	s.n.	W	
obtusifolia	Brazil	Minas Gerais	Serra do Caraça, 70 km a SE de Belo Horizonte, em direção Carapuaça	1500-1700	18-Nov-78	Cruz et al.	6453	US	
obtusifolia	Brazil	Minas Gerais	Serra do Caraça, 70 km SE Belo Horizonte	1500-1700	18-Nov-78	Cruz et al.	6453	INPA	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, km 141 da Estrada de Conceição	1250	12-Dec-49	Duarte	2280	RB	[2 sheets]
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, km 126 ant. Min. de Santa Luzia		25-Oct-61	Duarte	6405	RB	[3 sheets]
obtusifolia	Brazil	Minas Gerais	Serra da Pedade		Jan 1866	Erigler	1131	C	
obtusifolia	Brazil	Rio de Janeiro	Mun. Sta. Maria Magdalena, P.E. Desengano, Pedra do Desengano	1500-1650	17-Sep-86	Farney & Caruso	1207	RB	[2 sheets]
obtusifolia	Brazil	Minas Gerais	Estrada Lagoa Santa/Conc. Do Mato Dendro, 17 km do Córrego Chapéu de Sol		25-Feb-84	Farney et al.	453	RB	[2 sheets]
obtusifolia	Brazil	Minas Gerais	Km 123 Mata ciliar Corego 3 Pontinhas		5-Dec-81	Hensold et al.	7710	SPF	
obtusifolia	Brazil	Minas Gerais	Serra deo Gariupu, Cocae		13-Jan-21	Hoehne	4992	NEU	
obtusifolia	Brazil	Minas Gerais	Serra deo Gariupu, Cocae		13-Jan-21	Hoehne	4992	SP	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	F	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	INPA	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	MBM	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	MO	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	MG	

obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	NY	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	R	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	S	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, ca. Km 120 (ca. 145 km N of Belo Horizonte)	1200	14-Feb-68	Irwin et al.	20021	US	[2 sheets] 1 sheet on loan
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço	1370	19-Jan-69	Irwin et al.	22249	LD	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço	1370	19-Jan-69	Irwin et al.	22249	NY	
obtusifolia	Brazil	Minas Gerais	Serra do Espinhaço	1370	19-Jan-69	Irwin et al.	22249	S	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, Município de Santana do Riacho	1300	11-May-74	Martinelli	300	RB	[2 sheets]
obtusifolia	Brazil	Rio de Janeiro	Mun. Sta. Maria Magdalena, P.E. Desengano, Pedra do Desengano	1800-1850	28-Jun-89	Martinelli	13339	RB	[3 sheets]
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, km. 138 estrada de Conceição		4-Feb-38	Mello Barreto	8845	F	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 140 Belo Horizonte-Conceição do Mato Dentro		24-Nov-79	Menezes	5769	NEU	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 140 Belo Horizonte-Conceição do Mato Dentro		24-Nov-79	Menezes	5769	SP	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, Alto Congonhas, 12 km NE de Cardeal Mota, hacia Conceição do Mato Dentro	1000-1320	9-Feb-91	Menezes et al.	4752	SPF	
obtusifolia	Brazil	Minas Gerais	Serra do Cipó, Alto Congonhas, 12 km NE de Cardeal Mota, hacia Conceição do Mato Dentro	1000-1320	9-Feb-91	Menezes et al.	4752	GH	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km X Belo Horizonte-Conceição do Mato Dentro	1000	18-Feb-82	Muniz et al.	7887	SPF	
obtusifolia	Brazil	Rio de Janeiro	Mun. de Macaé, Pico do Frade de Macaé	1300	7-Aug-85	Pessoa et al.	34	RB	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 140 Belo Horizonte-Conceição do Mato Dentro		29-Feb-80	Pirani	5957	NEU	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km 140 Belo Horizonte-Conceição do Mato Dentro		29-Feb-80	Pirani	5957	SP	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km X Belo Horizonte-Conceição do Mato Dentro		16-Dec-80	Pirani et al.	6847	NEU	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km X Belo Horizonte-Conceição do Mato Dentro		16-Dec-80	Pirani et al.	6847	SPF	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km X Belo Horizonte-Conceição do Mato Dentro		16-Dec-80	Pirani et al.	6847	SP	
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, km X Belo Horizonte-Conceição do Mato Dentro		16-Dec-80	Pirani et al.	6847	U	[2 sheets]
obtusifolia	Brazil	Minas Gerais	Serra da Lapa		Feb 1824	Riedel	1161	BR	
obtusifolia	Brazil	Minas Gerais				Riedel	s.n.	G	

obtusifolia	Brazil	Minas Gerais				Riedel	s.n.	GH	
obtusifolia	Brazil	Minas Gerais				Riedel	s.n.	K	
obtusifolia	Brazil	Minas Gerais				Riedel	s.n.	OXF	
obtusifolia	Brazil	Minas Gerais			1816-1821	Saint-Hilaire	2261	P	[3 sheets]
obtusifolia	Brazil	Minas Gerais			1816-1821	Saint-Hilaire	2262	P	
obtusifolia	Brazil	Minas Gerais	Serra de Casasse		1816-1821	Saint-Hilaire	s.n.	P	[4 sheets]
obtusifolia	Brazil	Minas Gerais	Mun. de Santana do Riacho, Estrada Belo Horizonte-Conceição do Mato Dentro, bifurcação para Morro do Pilar		13-Dec-87	Salatino et al.	10808	SPF	
obtusifolia	Brazil	Rio de Janeiro				Sellow	s.n.	K	lect
obtusifolia	Brazil	Rio de Janeiro				Sellow	s.n.	P	isolect
obtusifolia	Brazil	Minas Gerais			18-Jan-09	Weddell	s.n.	P	
obtusifolia	Brazil	Minas Gerais			1838-1842	Wilkes	s.n.	US	
obtusifolia !	Brazil	São Paulo	Mun. de Cunha, Trilha da Pedreira, 23 14 02 S, 45 00 17 W		13-Dec-96	Souza, J.P. et al.	858	SPF	
obtusifolia 1	Brazil	São Paulo	Cunha, Parque Estadual da Serra do Mar, Núcleo Cunha/Indaia, Trilha do Rio Bonito, Mata Ombrófila Densa		15-Feb-00	Cordeiro	2025	SP	[3 sheets]
ostentans	Peru	Huánuco	SW slope Río LlullaPichis watershed, ascent of Cerros del Sira	1540	25-Jul-69	Dudley	13279	NA	[NA at WU]
ostentans	Peru	Huánuco	SW slope Río LlullaPichis watershed, ascent of Cerros del Sira	1800	28-Jul-69	Dudley	13357	F	
ostentans	Peru	Huánuco	SW slope Río LlullaPichis watershed, ascent of Cerros del Sira	1800	28-Jul-69	Dudley	13357	NA	[NA at WU]
ostentans	Peru	Pasco	Oxapampa, Villa Rica-Puerto Bermudes rd., 15 km from Villa Rica	1650	21-Mar-84	Smith, D.N. et al.	6440	MO3	
ostentans	Peru	Pasco	Oxapampa, Villa Rica-Puerto Bermudes rd., 15 km from Villa Rica	1650	21-Mar-84	Smith, D.N. et al.	6440	U	
ostentans	Peru	Huánuco	Pachitea, Pucallpa, 24-26 km SE of Puerto Inca, weatern part of the "Sira Mountains"	1080	9-Jun-88	Wallnöfer	12968 8	U	
ostentans	Peru	Huánuco	Pachitea, Pucallpa, 24-26 km SE of Puerto Inca, weatern part of the "Sira Mountains"	1080	9-Jun-88	Wallnöfer	12968 8	WU	
pachyphylla	Colombia	Putumayo	Santiago, vereda San Antonio de Bellavista	3195	9-Oct-97	Betancur & Luteyn	7456	COL	
pachyphylla	Colombia	Putumayo	Santiago, vereda San Antonio de Bellavista	3195	9-Oct-97	Betancur & Luteyn	7456	NY	
pachyphylla	Colombia	Putumayo	Carr. Pasto-Santiago, km 36	3000	30-Sep-63	Bristol	1429	COL	
pachyphylla	Colombia	Putumayo	Carr. Pasto-Santiago, km 36	3000	30-Sep-63	Bristol	1429	GH	
pachyphylla	Colombia	Putumayo	Carr. Pasto-Santiago, km 36	3000	30-Sep-63	Bristol	1429	US	
pachyphylla	Colombia	Putumayo	Páramo de Bordoncillo	3250	4-Jan-41	Cuatrecasas	11785	US	
pachyphylla	Colombia	Cauca	P.N. Puracé, Paletará-Istnos	2950	17-Oct-87	Duque	651	COL	

pachyphylla	Colombia	Nariño	Páramo de Bordoncillo	3250	5-Mar-63	Espinal	1025	COL	
pachyphylla	Colombia	Nariño	Río de Potreros	3200-3400	3-Dec-44	Ewan	16531	C	
pachyphylla	Colombia	Nariño	Río de Potreros	3200-3400	3-Dec-44	Ewan	16531	US/	not on loan
pachyphylla	Colombia	Cauca	Macizo Colombiano, La Hoyola	2910	20-Sep-58	Idrobo et al.	3606	COL	
pachyphylla	Colombia	Cauca	Macizo Colombiano, La Hoyola	2910	20-Sep-58	Idrobo et al.	3606	P	
pachyphylla	Colombia	Cauca	Macizo Colombiano, Valle de Las Papas	2800-3100	26-Sep-58	Idrobo et al.	3796	COL	
pachyphylla	Colombia	Cauca	Macizo Colombiano, Valle de Las Papas	2800-3100	26-Sep-58	Idrobo et al.	3796	P	
pachyphylla	Colombia	Nariño	Pasto	305		Jameson	467	BM	iso
pachyphylla	Colombia	Nariño	Pasto	305	Jul 1846	Jameson	467	G	iso (G-BOIS)
pachyphylla	Colombia	Nariño	Pasto	305	Jul 1846	Jameson	467	G	iso (G-DEL)
pachyphylla	Colombia	Nariño	Pasto	305	Jul 1846	Jameson	467	G	lect
pachyphylla	Colombia	Nariño	Pasto	305		Jameson	467	K	iso
pachyphylla	Colombia	Nariño	Pasto	305		Jameson	467	OXF	iso
pachyphylla	Colombia	Nariño	Pasto	305	1846-1869	Jameson	467	US	iso
pachyphylla	Ecuador					Jameson	s.n.	W	I
pachyphylla	Colombia	Putumayo	El Encano, between El Encano and Santiago	3000	28-Oct-72	Weaver	2653	GH	[2 sheets]
pachyphylla	Colombia	Putumayo	El Encano, between El Encano and Santiago	3000	28-Oct-72	Weaver	2653	MO	[2 sheets]
pachyphylla	Colombia	Putumayo	El Encano, between El Encano and Santiago	3000	28-Oct-72	Weaver	2653	NY	
pachystyla	Peru					Matthews	2065	BM	
pachystyla	Peru				9-Jan-09	Matthews	2065	E	
pachystyla	Peru				9-Jan-09	Matthews	2065	K	[2 sheets]
pachystyla	Peru					Matthews	2065	OXF	
pachystyla	Peru				10-Jan-09	Matthews	2065	P	
pachystyla	Peru					Matthews	2065	W	
pachystyla	Peru	Huánuco	Peruvia subandina, in sylvas marginalibus Cuchero		February 1830	Poeppig	1666	W	[5 sheets]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	BM	[BM 583101]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	BM	[BM 583102]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	BM	[BM 583107]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	BM	[BM 583108]

pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	BM	[BM 583109]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	F	[F sheet 842844]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	F	[F sheet 843438]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	G	[G 8647/13] [G-BOISS]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	G	[G 8647/9]
pachystyla	Peru	Huánuco				Ruíz & Pavón	s.n.	MA-RUIZP AVON	[2 sheets]
pachystyla	Peru	San Martín	Mariscal Caceres, Tocache Nuevo, camino al Caserío de Santa Rosa de Mishollo, 4 km de Puerto Pizana		4-May-71	Schunke-Vigo	4848	COL	
pachystyla	Peru	Huánuco	Huamilies, Monzón, Paujil, Carretera a Cachicoto	800-830	22-Mar-72	Schunke-Vigo	5298	F	
pachystyla	Peru	Huánuco	Huamilies, Monzón, Paujil, Carretera a Cachicoto	800-830	22-Mar-72	Schunke-Vigo	5298	G	[2 sheets]
pachystyla	Peru	Huánuco	Huamilies, Monzón, Paujil, Carretera a Cachicoto	800-830	22-Mar-72	Schunke-Vigo	5298	GH	
pachystyla	Peru	Huánuco	Huamilies, Monzón, Paujil, Carretera a Cachicoto	800-830	22-Mar-72	Schunke-Vigo	5298	MO	
pachystyla	Peru	Huánuco	Huamilies, Monzón, Paujil, Carretera a Cachicoto	800-830	22-Mar-72	Schunke-Vigo	5298	NY	
pachystyla	Peru	Huánuco	Huamilies, Monzón, Paujil, Carretera a Cachicoto	800-830	22-Mar-72	Schunke-Vigo	5298	US	
pachystyla	Peru	Huánuco	Rondos		24-Apr-62	Schunke-Vigo	5880	F	
pachystyla	Peru	Huánuco	Rondos		24-Apr-62	Schunke-Vigo	5880	MO3	
pachystyla	Peru	Huánuco	Rondos		24-Apr-62	Schunke-Vigo	5880	US	
pachystyla	Peru					Stockholm	s.n.	S	
pachystyla	Peru	Huánuco	Chicoplaya			Tafalla	s.n.	G	iso [G-BOISS] [8647/14]
pachystyla	Peru	Huánuco	Chicoplaya			Tafalla	s.n.	MA-RUIZP AVON	holo [2 sheets]
pajonalis	Peru	Pasco	Oxapampa, Cordillera Yanachaga, Cerro Pajonal "chacos", 12 km SE of Oxapampa	2700-2800	7-Oct-82	Foster	9008	MO3	
pajonalis	Peru	Pasco	San Gutardo, Oxapampa-Cerro de Pasco road 30-35 km W of Oxapampa	2650-2800	3-Feb-83	Gentry et al.	39988	HAM	
pajonalis	Peru	Pasco	San Gutardo, Oxapampa-Cerro de Pasco road 30-35 km W of Oxapampa	2650-2800	3-Feb-83	Gentry et al.	39988	USM	
pajonalis	Peru	Huánuco	Pampayacu		13-Jan-27	Kanehira	45	GH	

pajonalis	Peru	Huánuco	Huánuco, Carpish Hills, c. 2 km E of tunnel on rd to Tingo Maria	2640	5-Mar-85	Stein & Todzia	2322	HAM	iso
pajonalis	Peru	Huánuco	Huánuco, Carpish Hills, c. 2 km E of tunnel on rd to Tingo Maria	2640	5-Mar-85	Stein & Todzia	2322	MO3	holo
pajonalis	Peru	Huánuco	Huánuco, Carpish Hills, c. 2 km E of tunnel on rd to Tingo Maria	2640	5-Mar-85	Stein & Todzia	2322	U	iso
pajonalis	Peru	Huánuco	Huánuco, Carpish Hills, c. 2 km E of tunnel on rd to Tingo Maria	2640	5-Mar-85	Stein & Todzia	2322	USM	iso
pajonalis	Peru	Pasco	Border between Oxapampa and Pasco	2700	7-Mar-86	van der Werff	8577	HAM	
pajonalis	Peru	Pasco	Oxapampa, 12 km SE of town, road over shoulder of Cerro Pajonal to Villa Rica	3000	5-Feb-97	Weigend & Dostert	97/78	MSB	
pajonalis	Peru	Huánuco	Prov. Leoncio Prado border to Huánuco, road from Tingo Maria to Huánuco, above pass (Carpish)	2800	29-Mar-01	Weigend et al.	5399	BSB	
pajonalis	Peru	Huánuco	Prov. Leoncio Prado border to Huánuco, road from Tingo Maria to Huánuco, above pass (Carpish)	2800	29-Mar-01	Weigend et al.	5399	HUT2	
pajonalis	Peru	Huánuco	Prov. Leoncio Prado border to Huánuco, road from Tingo Maria to Huánuco, above pass (Carpish)	2800	29-Mar-01	Weigend et al.	5399	NY	
pajonalis	Peru	Pasco	Oxapampa, old road from Oxapampa to Villa Rica, footpath to antenna	2200-2600	5-Apr-01	Weigend et al.	5487	BSB	
pajonalis	Peru	Huánuco	Huánuco, km 451 on Lima-Tingo Maria rd	2450	2-Jun-81	Young & Sullivan	507	HAM	
pajonalis	Peru	Huánuco	Huánuco, km 451 on Lima-Tingo Maria rd	2450	2-Jun-81	Young & Sullivan	507	U2	[2 sheets]
papillosa	Venezuela	Mérida	Entre Las Cruces e inmediaciones de la Carbonera	1000	17-Aug-72	Benítez de Rojas	1505	F	
papillosa	Venezuela	Mérida	Entre Las Cruces e inmediaciones de la Carbonera	1000	17-Aug-72	Benítez de Rojas	1505	MY	
papillosa	Venezuela	Mérida	Faldas inferiores del Toro	2300	22-Nov-52	Bernardi	14	NY	
papillosa	Venezuela	Mérida	Selva nublada del Cerro El Toro, de frende a Mérida	2100	30-Jan-55	Bernardi	1878	NY	
papillosa	Venezuela	Mérida	Páramo de Las Coloradas	2700-2750	27-May-80	Cuatrecasas et al.	28997	NY	
papillosa	Venezuela	Mérida	Páramo de Las Coloradas	2700-2750	27-May-80	Cuatrecasas et al.	28997	US	[2 sheets]
papillosa	Venezuela	Mérida	Sierra del Norte	2400	6-Oct-52	Humbert	26685	P	
papillosa	Venezuela	Mérida	Sierra del Norte	2400	6-Oct-52	Humbert	26685	VEN	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	COL	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	GH	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	K3	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	MO2	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	NY	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	S2	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	U	
papillosa	Venezuela	Mérida	18 km above La Azulita	2200	14-Nov-80	Maas & Tillett	5300	VEN	
papillosa	Venezuela	Mérida	24 km above La Azulita	2300	14-Nov-80	Maas & Tillett	5302	GH	

papillosa	Venezuela	Mérida	24 km above La Azulita	2300	14-Nov-80	Maas & Tillett	5302	K3	
papillosa	Venezuela	Mérida	24 km above La Azulita	2300	14-Nov-80	Maas & Tillett	5302	MO2	
papillosa	Venezuela	Mérida	24 km above La Azulita	2300	14-Nov-80	Maas & Tillett	5302	NY	
papillosa	Venezuela	Mérida	24 km above La Azulita	2300	14-Nov-80	Maas & Tillett	5302	U	[2 sheets]
papillosa	Venezuela	Mérida	24 km above La Azulita	2300	14-Nov-80	Maas & Tillett	5302	VEN	
papillosa	Venezuela	Mérida	Between La Cumbre, San José, and Mucutuy	1820-2590	3-May-44	Steyermark	56239	F	
papillosa	Venezuela	Mérida	Bosque de la Mucuy	2200-2500	14-Nov-58	Trujillo	4020	MY	
papillosa	Venezuela	Mérida	Road to La Carbonera		25-Sep-72	Weaver	2611	BM	iso
papillosa	Venezuela	Mérida	Road to La Carbonera		25-Sep-72	Weaver	2611	G	iso
papillosa	Venezuela	Mérida	Road to La Carbonera		25-Sep-72	Weaver	2611	GH	holo
papillosa	Venezuela	Mérida	Road to La Carbonera		25-Sep-72	Weaver	2611	MO	iso
papillosa	Venezuela	Mérida	Road to La Carbonera		25-Sep-72	Weaver	2611	WS	iso
papillosa	Venezuela	Mérida	Teleferico de Mérida, station La Montaña	2400	4-Oct-72	Weaver	2629	GH	[2 sheets]
papillosa	Venezuela	Mérida	Teleferico de Mérida, station La Montaña	2400	4-Oct-72	Weaver	2629	MO2	
pinetorum	Cuba	Oriente	Roig. Cayo Guam, Moa		17-Apr-45	Acuña	8562	LS	not seen
pinetorum	Cuba	Oriente	Vic. of Moa, Cayo Guan		17-Apr-45	Acuña	12730	LS	not seen
pinetorum	Cuba	Oriente	Vic. of Moa, Cayo Guan		17-Apr-45	Acuña	12730	US	
pinetorum	Cuba	Oriente	Galano Peak, Sierra del frijol, La Alegría, Toa		2-Jan-54	Alain	3855	LS	not seen
pinetorum	Cuba	Oriente	Galano Peak, Sierra del frijol, La Alegría, Toa		2-Jan-54	Alain	3855	NY	iso
pinetorum	Cuba	Oriente	Mina Delta, Moa		1-Jul-49	Alain & Clemente	926	GH	
pinetorum	Cuba	Oriente	Mina Delta, Moa		1-Jul-49	Alain & Clemente	926	NY	
pinetorum	Cuba	Oriente	Mina Delta, Moa		1-Jul-49	Alain & Clemente	926	US	
pinetorum	Cuba	Oriente	Sierra del Cristal		28-Dec-55	Alain & López Figueiras	4714	LS	not seen [2 sheets]
pinetorum	Cuba	Oriente	South slope of Sierra de Cristal		1-Apr-56	Alain et al.	5527	LS	not seen
pinetorum	Cuba	Oriente	Baracoa, Alto entre Loma del Mirador y Loma de Buena Vista, al oeste de Camarones, charrascos		6-Aug-75	Alvarez et al.	27120	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, Loma de Buena Vista, parte oeste, al oeste de Camarones	500-600	12-Aug-75	Alvarez et al.	27392	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, Loma de Buena Vista, parte oeste, al oeste de Camarones	500-600	12-Aug-75	Alvarez et al.	27392	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, Loma de Buena Vista, parte oeste, al oeste de Camarones	500-600	12-Aug-75	Alvarez et al.	27392	LS	not seen
pinetorum	Cuba	Oriente	Baracoa, Imias, Sierra de Imias, Loma Jubal, al sur de Los Lechugos		19-Aug-75	Alvarez et al.	27516	JE	[not seen, Thiv]

pinetorum	Cuba	Oriente	Oriente, Mayari Arriba, Sierra del Christal, regio superior del macizo central, falda sur		22-Feb-76	Alvarez et al.	30524	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Sierra Cristal, falda sur de la Sierra		1-Apr-68	Bisse	8365	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Moa, charrascales y monte nublado		1-Dec-69	Bisse	15335	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Palenque, Cuchillas de Toa, Cayo Fortuna charrascos cerca del arroyo Manaju		30-Mar-72	Bisse & Berasain	22205	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, altiplano de la Mina Iberia		1-Mar-68	Bisse & Köhler	6314	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Moa, charrascales en el altiplano de la Sierra de Moa		1-Mar-68	Bisse & Köhler	6550	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, altiplano de la Mina Iberia		1-Mar-68	Bisse & Köhler	6820	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Sierra Cristal, falda norte del maciso central		1-Apr-68	Bisse & Köhler	7240	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Sierra Cristal, charrascal en la cima de la Sierra		1-Apr-68	Bisse & Köhler	8319	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, Sierra de Purial, La Gurbia		1-Mar-68	Bisse & Köhler	8554	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, Sierra de Imias, monte nublado		1-Mar-68	Bisse & Köhler	8917	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Baracoa, Sierra de Imias, monte nublado		1-May-68	Bisse & Köhler	9097	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Moa, La Melba, charrascales cerca del aserrio		22-Dec-68	Bisse & Lippold	11406	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Moa, charrascales en el altiplano de la Sierra de Moa		7-Jan-69	Bisse & Lippold	11680	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Moa, charrascales en el altiplano de la Sierra de Moa		7-Jan-69	Bisse & Lippold	11711	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Moa, Sierra de Moa, al oeste de Toma del Toldo		14-Aug-70	Bisse & Lippold	17890	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Guantanamo, Cupeyal del Norte, pluviosilva de montana de la reservacion		1-Jun-67	Bisse & Rojas	3713	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Cuchillas de Toa, Sierra de Magüey, pluviosilva y charrascales		24-Mar-72	Bisse et al.	22500	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Guantanamo, Mun. Imias, Sierra de Imias, Loma al noreste de Alto de Yamagua, ca. 3 km N de Las Lechugos, charrascos,		18-Apr-84	Bisse et al.	53383	JE	[not seen, Thiv]
pinetorum	Cuba	Oriente	Loma Mensura, Sierra de Nipe		18-Jul-70	Borhidi & Muñiz	172/56	LS	not seen
pinetorum	Cuba	Oriente	Mountain rain forest on the Troa river valler, Cupeval, Yateras.		9-Feb-70	Borhidi et al.	83/20	LS	not seen

			Guantánamo						
pinetorum	Cuba	Oriente	Banks of Arroyon River, Monte de la Breña, Sierra de Moa		27-Jan-45	Clemente	4401	GH	iso
pinetorum	Cuba	Oriente	Banks of Arroyon River, Monte de la Breña, Sierra de Moa		27-Jun-45	Clemente	4401	LS	not seen [3 sheets]
pinetorum	Cuba	Oriente	Banks of Arroyon River, Monte de la Breña, Sierra de Moa		27-Jun-45	Clemente	4401	US	iso 2nd sheet not on loan
pinetorum	Cuba	Oriente	Banks of Arroyon River, Monte de la Breña, Sierra de Moa		27-Jun-45	Clemente	4401	US/	not on loan
pinetorum	Cuba	Oriente	Trail to Delta mine, Moa		1-Jul-49	Clemente et al.	6826	LS	not seen
pinetorum	Cuba	Oriente	Prov. Oriente, 35 km NE Guantánamo, Gebiet von palenque, Cajo fortuna		25-Mar-72	Ebel	s.n.	HAL	[not seen, Thiv]
pinetorum	Cuba	Oriente	Minas de Iberia (ad Taco Bay)	800	7-Dec-14	Ekman	3806	F	
pinetorum	Cuba	Oriente	Oriente, on the top of Minas Iberia on Taco Bay		7-Dec-14	Ekman	3806	K	[not seen, Thiv]
pinetorum	Cuba	Oriente	Minas de Iberia (ad Taco Bay)	800	7-Dec-14	Ekman	3806	MICH	
pinetorum	Cuba	Oriente	Minas de Iberia (ad Taco Bay)	800	7-Dec-14	Ekman	3806	S	
pinetorum	Cuba	Oriente	Minas de Iberia (ad Taco Bay)	800	7-Dec-14	Ekman	3806	US	
pinetorum	Cuba	Oriente	Sierra del Cristal	1325	8-Mar-16	Ekman	6846	S	
pinetorum	Cuba	Oriente	Sierra del Cristal	600	15-Dec-22	Ekman	15947	G	
pinetorum	Cuba	Oriente	Sierra del Cristal	600	15-Dec-22	Ekman	15947	K	
pinetorum	Cuba	Oriente	Sierra del Cristal	600	15-Dec-22	Ekman	15947	S	
pinetorum	Cuba	Oriente	Yateras District, Sierra de Maguey, 3 km NE of Cupeyal	800	12-Jan-68	Humboldt Exp. Berlin	704	LS	not seen
pinetorum	Cuba	Oriente	Cayoguán charrascos, Moa		1-Jan-43	Léon & Montero	21249	LS	not seen
pinetorum	Cuba	Oriente	Pico del Cristal, Sierra del Cristal	1800-3150	25-Aug-59	López Figueiras	89	LS	not seen [2 sheets]
pinetorum	Cuba	Oriente	Pico del Cristal, Sierra del Cristal	1800-3150	25-Aug-59	López Figueiras	89	US	[2 sheets]
pinetorum	Cuba	Oriente	Between Los Mulos and Cayo Verde, Sierra de Cristal		1-Jun-60	López Figueiras	2125	LS	not seen
pinetorum	Cuba	Oriente	Sierra La Iberia, between base of sierra and Iberia river, Taco Bay, Baracoa		25-Jul-60	López Figueiras	2184	LS	not seen
pinetorum	Cuba	Oriente	Pico del Christal			López, M.	89	US/	not on loan
pinetorum	Cuba	Oriente	Camp La Gloria, S of Sierra Moa, N of Rio Jaguani		27-Dec-11	Shafer	8166	GH	
pinetorum	Cuba	Oriente	Camp La Gloria, S of Sierra Moa, N of Rio Jaguani		27-Dec-11	Shafer	8166	NY	[2 sheets]
pinetorum	Cuba	Oriente	Camp La Gloria, S of Sierra Moa		30-Dec-10	Shafer	8247	GH	
pinetorum	Cuba	Oriente	Camp La Gloria, S of Sierra Moa		30-Dec-10	Shafer	8247	NY	[2 sheets]

pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	BM	
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	BR	
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	FI	
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		4-Feb-09	Wright	1347	G	[3 sheets]
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		Jan-Jul 1859	Wright	1347	GOET	[2 sheets]
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	K	[2 sheets]
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	LS	not seen [2 sheets]
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	MA-WRIG HT	
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	MO	
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	P	
pinetorum	Cuba	Oriente	Propre villam Monte Verde dictam		3-Feb-09	Wright	1347	W	
piresii	Brazil	Amazonas	Cerro de la Neblina	1900-2100	17-Apr-84	Gentry & Stein	46733	VEN	
piresii	Brazil	Amazonas	Serra da Neblina, Rio Negro, Rio Cauaburí, trail to Pico Phelps	8000-8500 ft	2-Dec-64	Maguire et al.	60453	MG	not seen
piresii	Brazil	Amazonas	Serra da Neblina, Rio Negro, Rio Cauaburí, trail to Pico Phelps	8000-8500 ft	2-Dec-64	Maguire et al.	60453	NY	holo [3 sheets]
piresii	Brazil	Amazonas	Serra da Neblina, Rio Negro, Rio Cauaburí, trail to Pico Phelps	8000-8500 ft	2-Dec-64	Maguire et al.	60453	US3	check elev!
piresii	Brazil	Amazonas	Serra da Neblina, Rio Negro, Rio Cauaburí, trail to Pico Phelps	8000-8500 ft	2-Dec-64	Maguire et al.	60453	VEN	not seen
pringleana	Peru	Amazonas	Al rededor de la yuwi entsa, 6 hours desde pongo more el camino o kusu, monte al lado de yuwi entsa	1700-2000	11-Mar-73	Ancuash	98	MO3	
pringleana	Ecuador	Tungurahua	Río Topo	1220	12-Nov-55	Asplund	18364	S	
pringleana	Ecuador	Pastaza	Mera, bank of Río Pastaza	1050	21-Dec-55	Asplund	18939	S	[2 sheets]
pringleana	Ecuador	Pastaza	Hacienda San Antonio de Baron von Humboldt, 2 km al NE de Mera	1300	5-Mar-85	Baker et al.	5509	QCNE	*
pringleana	Ecuador	Napo	Tena-Pano road	550	18-Jul-82	Besse et al.	1668	SEL	
pringleana	Ecuador	Pastaza	Road N from Mera know as the "via Anzu"	1100	1-Jan-88	Boom et al.	7884	NY	
pringleana	Ecuador	Pastaza	Road N from Mera know as the "via Anzu"	1100	1-Jan-88	Boom et al.	7884	QCA	*
pringleana	Ecuador	Pastaza	Road N from Mera know as the "via Anzu"	1100	1-Jan-88	Boom et al.	7884	QCNE	
pringleana	Ecuador	Morona-Santiago	Valley of the Ríos Negro and Chupianza	2100-3100	14-Dec-44	Camp	1533	NO	
pringleana	Ecuador	Morona-Santiago	Valley of the Ríos Negro and Chupianza	2100-3100	14-Dec-44	Camp	1533	NY	

pringleana	Ecuador	Morona-Santiago	Valley of the Ríos Negro and Chupianza	2100-3100	14-Dec-44	Camp	1533	S	
pringleana	Ecuador	Morona-Santiago	Loma San José Grande - Sendero San José - Río Bomboiza	1300-1600	21-Apr-91	Cerón	14358	MO	loan at Rutgers
pringleana	Ecuador	Morona-Santiago	Loma San José Grande - Sendero San José - Río Bomboiza	1300-1600	21-Apr-91	Cerón	14358	QAP	
pringleana	Ecuador	Morona-Santiago	Loma San José Grande - Sendero San José - Río Bomboiza	1300-1600	21-Apr-91	Cerón	14358	QCNE	*
pringleana	Ecuador	Sucumbios	Gonzalo Pizarro Canton, Parroquia Reventador	1800	23-May-90	Cerón & Ayala	9988	HAM	
pringleana	Ecuador	Sucumbios	Gonzalo Pizarro Canton, Parroquia Reventador	1800	23-May-90	Cerón & Ayala	9988	QCNE	
pringleana	Ecuador	Napo	Reserva Ecologica Antisana, comunidad Shamato, entrada por km 21 - Shamata	1700	23-Apr-98	Clark, J.L. et al.	5029	MO3	
pringleana	Ecuador	Napo	Reserva Ecologica Antisana, comunidad Shamato, entrada por km 21 - Shamata	1700	23-Apr-98	Clark, J.L. et al.	5029	QCNE	*
pringleana	Ecuador	Napo	Reserva Ecologica Antisana, Sector Guacamayos, sendero Jumandy- La Virgen (km 30)	1700-1800	1-May-98	Clark, J.L. et al.	5480	MO3	
pringleana	Ecuador	Napo	Reserva Ecologica Antisana, Sector Guacamayos, sendero Jumandy- La Virgen (km 30)	1700-1800	1-May-98	Clark, J.L. et al.	5480	QCNE	*
pringleana	Ecuador	Tungurahua	Baños, Parroquia Río Verde, sector Machay (Baños-Puyo road to Río Verde)	1800-2200	24-Dec-00	Clark, J.L. et al.	5724	QCA2	
pringleana	Ecuador	Tungurahua	Baños, Parroquia Río Verde, sector Machay (Baños-Puyo road to Río Verde)	1800-2200	24-Dec-00	Clark, J.L. et al.	5724	US/	not on loan
pringleana	Ecuador	Tungurahua	Between Ambato and Banos		10-Jan-81	D'Arcy	14004	MO3	
pringleana	Ecuador	Tungurahua	Between Ambato and Banos		10-Jan-81	D'Arcy	14014	HAM	
pringleana	Ecuador	Tungurahua	Between Ambato and Banos		10-Jan-81	D'Arcy	14014	MO	
pringleana	Ecuador	Tungurahua	Between Ambato and Banos		10-Jan-81	D'Arcy	14014	NY	
pringleana	Ecuador	Napo	New road to Loreto, 56 km S of Baeza, 28 km E of junction with Baeza-Tena road	1100	21-Dec-88	Hammel & Wilder	17267	MO3	
pringleana	Ecuador	Pastaza	El Topo	1250	28-Nov-59	Harling	3413	S	
pringleana	Ecuador	Pastaza	Mera, along Río Allpayacu	1000	6-Mar-80	Harling & Andersson	16984	GB	[2 sheets]
pringleana	Ecuador	Morona-Santiago	Santa Susana de Chiviaza	1200	1-Mar-93	Harling & Ståhl	26808	GB	
pringleana	Ecuador	Morona-Santiago	Santa Susana de Chiviaza	1200	1-Mar-93	Harling & Ståhl	26808	S	
pringleana	Ecuador	Morona-Santiago	Pan de Azúcar, Indanza-Don Bosco	1000-1100	2-Mar-93	Harling & Ståhl	26853	S	
pringleana	Ecuador	Pastaza	Mera	1100	25-May-68	Harling et al.	10208	GB	
pringleana	Ecuador	Pastaza	Mera, trail to Pindo	1000	16-Jan-82	Harling et al.	19621	GB	
pringleana	Ecuador	Zamora-Chinchi	Nangaritza, Parroquia Pachicutza	900	6-Dec-90	Jaramillo & Grijalva	13411	NY	
pringleana	Ecuador	Zamora-Chinchi	Nangaritza, Parroquia Pachicutza	900	6-Dec-90	Jaramillo & Grijalva	13411	QCA	*
pringleana	Ecuador	Tungurahua	Cashurco, near Río Negro		18-Mar-69	Lugo S.	813	GB	

pringleana	Ecuador	Pastaza	Cabeceras on the Río Bobonaza, ca. 12 km E of Puyo		16-Nov-74	Lugo S.	4618	GB	
pringleana	Ecuador	Pastaza	Cabeceras on the Río Bobonaza, ca. 12 km E of Puyo		16-Nov-74	Lugo S.	4618	U	
pringleana	Ecuador	Pastaza	Veracruz (Indillama)		22-Nov-74	Lugo S.	4656	GB	
pringleana	Ecuador	Morona-Santiago	2-4 km N of Arapicos	800-900	4-Apr-81	Lugo S.	5980	GB	
pringleana	Ecuador	Morona-Santiago	2-6 km S of Arapicos	800-900	6-Apr-82	Lugo S.	6003	GB	
pringleana	Ecuador	Pastaza	Puyo-Puerto Napo Road	1000-1025	25-Apr-78	Luteyn & Lebrón-Luteyn	5830	GH	[2 sheets]
pringleana	Ecuador	Pastaza	Puyo-Puerto Napo Road	1000-1025	25-Apr-78	Luteyn & Lebrón-Luteyn	5830	NY	
pringleana	Ecuador	Pastaza	Baños near Río Negro	400-500	23-Feb-35	Mexia	6977	NA	
pringleana	Ecuador	Pastaza	Baños near Río Negro	400-500	23-Feb-35	Mexia	6977	UC	
pringleana	Ecuador	Pastaza	Baños near Río Negro	400-500	23-Feb-35	Mexia	6977	US	
pringleana	Ecuador	Pastaza	Between Mera and Río Negro	1300-1400	14-Jan-88	Molau et al.	2469	AAU	
pringleana	Ecuador	Pastaza	Between Mera and Río Negro	1300-1400	14-Jan-88	Molau et al.	2469	GB	
pringleana	Ecuador	Pastaza	Between Mera and Río Negro	1300-1400	14-Jan-88	Molau et al.	2469	HAM	
pringleana	Ecuador	Pastaza	Between Mera and Río Negro	1300-1400	14-Jan-88	Molau et al.	2469	QCA	*
pringleana	Ecuador	Pastaza	Between Mera and Río Negro	1300-1400	14-Jan-88	Molau et al.	2469	QCNE	
pringleana	Ecuador	Zamora-Chinchi	Nangaritza, lower slopes of Cord. Del Condor, above Río Nangaritza at Pachicutza	950	4-Dec-90	Neill & Palacios	9496	HAM	iso
pringleana	Ecuador	Zamora-Chinchi	Nangaritza, lower slopes of Cord. Del Condor, above Río Nangaritza at Pachicutza	950	4-Dec-90	Neill & Palacios	9496	MO	holo
pringleana	Ecuador	Zamora-Chinchi	Nangaritza, lower slopes of Cord. Del Condor, above Río Nangaritza at Pachicutza	950	4-Dec-90	Neill & Palacios	9496	QCNE	
pringleana	Ecuador	Pastaza	Hacienda San Antonio de Baron von Humboldt, 2 km al NE de Mera	1100	27-Feb-85	Neill et al.	5809	HAM	
pringleana	Ecuador	Pastaza	Hacienda San Antonio de Baron von Humboldt, 2 km al NE de Mera	1100	27-Feb-85	Neill et al.	5809	QCNE	
pringleana	Ecuador	Morona-Santiago	Río Cuyes y vía Bomboiza-Gualaquiza	800	1-Nov-86	Palacios	1430	QCNE	
pringleana	Ecuador	Morona-Santiago	Río Cuyes y vía Bomboiza-Gualaquiza	800	1-Nov-86	Palacios	1430	U	
pringleana	Ecuador	Pastaza	Puyo, Cantón Puyo, Los Cencedores, Estación Experimental Pastaza E.S.P.O.C.H.	800-1000	4-Oct-95	Pinus et al.	RBS-0023	MO3	
pringleana	Ecuador	Napo	Crescit in silvis, Cuyuyua Baeza		1-Feb-05	Sodi	s.n.	QPLS	[2 sheets]
pringleana	Ecuador	Pastaza	Puyo, Los Vencedores, Estacion Experimental ESPOCH	800-1040	14-Dec-95	Soejarto et al.	9424	F	[2 sheets]
pringleana	Ecuador	Pastaza	Puyo, Los Vencedores, Estacion Experimental ESPOCH		8-Jun-96	Soejarto et al.	9645	F	
pringleana	Ecuador	Pastaza	Río Cayabe, Mera and Río Topo	1100	17-Jul-67	Sparre	17619	S	

pringleana	Ecuador	Napo	Carr. Tena-Baeza, Cordillera de Guacamayos, Reserva Ecológica Antisana	1800	18-Jun-95	Tirado & Murillo	1563	MO3	
pringleana	Ecuador	Tungurahua	Baños, Zona de amortiguamiento del Parque Nacional Llanganates, Río Verde	1630	29-Jul-99	Vargas, H.	3634	MO3	
pringleana	Ecuador	Tungurahua	Baños, Zona de amortiguamiento del Parque Nacional Llanganates, Río Verde	1630	29-Jul-99	Vargas, H.	3634	QCA	
pringleana	Ecuador	Tungurahua	Baños, Zona de amortiguamiento del Parque Nacional Llanganates, Río Verde	1630	29-Jul-99	Vargas, H.	3634	QCNE	
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad Aguaruna Pagki-Suwa, Río Cenepa	289	24-Jan-97	Vásquez et al.	22234	HUT	
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad Aguaruna Pagki-Suwa, Río Cenepa	289	24-Jan-97	Vásquez et al.	22234	MO3	
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad Aguaruna Pagki-Suwa, Río Cenepa	289	24-Jan-97	Vásquez et al.	22234	U2	[2 sheets]
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad de Mamayaque, Cerro Sakee-gaig	1010	14-Feb-97	Vásquez et al.	22572	HUT	
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad de Mamayaque, Cerro Sakee-gaig	1010	14-Feb-97	Vásquez et al.	22572	MO3	[2 sheets]
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad de Mamayaque, Cerro Sakee-gaig	1010	14-Feb-97	Vásquez et al.	22572	U2	
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad de Mamayaque, Cerro Sakee-gaig		16-Feb-97	Vásquez et al.	22587	HUT2	
pringleana	Peru	Amazonas	Condorcanqui, Distrito El Cenepa, Comunidad de Mamayaque, Cerro Sakee-gaig		16-Feb-97	Vásquez et al.	22587	U2	
quechua	Peru	San Martín	Boquerón Pass, 92 km from Tingo María on highway to Pucallpa	400	16-Dec-50	Allard	22078	US	
quechua	Peru	San Martín	Serrania NE of Tarapoto on road to Yurimaguas, ca. 16 km NE of Tarapoto	800	19-Jul-82	Gentry et al.	37783	HAM	
quechua	Peru	San Martín	Serrania NE of Tarapoto on road to Yurimaguas, ca. 16 km NE of Tarapoto	800	19-Jul-82	Gentry et al.	37783	MO3	
quechua	Peru	San Martín	Serrania NE of Tarapoto on road to Yurimaguas, ca. 16 km NE of Tarapoto	800	19-Jul-82	Gentry et al.	37783	USM	
quechua	Peru	San Martín	Tarapoto-Yurimangas	1100	12-Jul-81	Halton & Besse	40	SEL	
quechua	Peru	San Martín	San Martín, trail to television antenna, km 17.5 of Tarapoto-Yurimaguas road (2.5 km N of Cataratas de Ahuashiyacu)	850-1200	7-Aug-86	Knapp	7911	HAM	
quechua	Peru	San Martín	San Martín, trail to television antenna, km 17.5 of Tarapoto-Yurimaguas road (2.5 km N of Cataratas de Ahuashiyacu)	850-1200	7-Aug-86	Knapp	7911	NEU	
quechua	Peru	San Martín	San Martín, trail to television antenna, km 17.5 of Tarapoto-Yurimaguas road (2.5 km N of Cataratas de Ahuashiyacu)	850-1200	7-Aug-86	Knapp	7911	U2	[3 sheets]
quechua	Peru	San Martín	San Martín, trail to television antenna, km 17.5 of Tarapoto-Yurimaguas road (2.5 km N of Cataratas de Ahuashiyacu)	850-1200	7-Aug-86	Knapp	7911	USM	not on loan

quechua	Peru	San Martín	Km 399 of Carretera Marginal, trail to Quebrada Venceremos and Río Serranoyacu, 67 km E of Pomacochas, 8 km W of bridge over Río Serranoyacu	1400-1500	13-Jun-86	Knapp & Alcorn	7743	HAM	
quechua	Peru	San Martín	Km 399 of Carretera Marginal, trail to Quebrada Venceremos and Río Serranoyacu, 67 km E of Pomacochas, 8 km W of bridge over Río Serranoyacu	1400-1500	13-Jun-86	Knapp & Alcorn	7743	MO3	
quechua	Peru	San Martín	Km 399 of Carretera Marginal, trail to Quebrada Venceremos and Río Serranoyacu, 67 km E of Pomacochas, 8 km W of bridge over Río Serranoyacu	1400-1500	13-Jun-86	Knapp & Alcorn	7743	USM	
quechua	Peru	San Martín	Prov. Lamas, Alonso de Alvarado, Cerro Blanco, carretera a Moyobamba	900-1000	14-May-73	Schunke-Vigo	6280	GH	[2 sheets]
quechua	Peru	San Martín	Prov. Lamas, Alonso de Alvarado, Cerro Blanco, carretera a Moyobamba	900-1000	14-May-73	Schunke-Vigo	6280	MG	
quechua	Peru	San Martín	Prov. Lamas, Alonso de Alvarado, Cerro Blanco, carretera a Moyobamba	900-1000	14-May-73	Schunke-Vigo	6280	NY	
quechua	Peru	San Martín	Prov. Lamas, Alonso de Alvarado, Cerro Blanco, carretera a Moyobamba	900-1000	14-May-73	Schunke-Vigo	6280	U	
quechua	Peru	San Martín	Ríoja, km 384 of carretera marginal, 100 km from Ríoja on road to Pomacocha	1900	16-Feb-85	Stein & Todzia	2187	HAM	
quechua	Peru	San Martín	Ríoja, km 384 of carretera marginal, 100 km from Ríoja on road to Pomacocha	1900	16-Feb-85	Stein & Todzia	2187	U2	
quechua	Peru	San Martín	Ríoja, km 384 of carretera marginal, 100 km from Ríoja on road to Pomacocha	1900	16-Feb-85	Stein & Todzia	2187	USM	
revoluta	Peru	Huánuco	Carr. Huánuco-Tingo Maria, entre Acomayo y Tingo Maria (Carpish)		14-Apr-79	Díaz & Osore de Díaz	1011	MO3	
revoluta	Peru	Junín	La Merced	610	10-Aug-23	MacBride	5224	F	
revoluta	Peru	Junín	La Merced	610	10-Aug-23	MacBride	5224	GH	
revoluta	Peru	Junín	La Merced	610	10-Aug-23	MacBride	5224	US/	not on loan
revoluta	Peru					Ruíz & Pavón	s.n.	BM	isolect [BM 583105]
revoluta	Peru					Ruíz & Pavón	s.n.	BM	isolect [BM 583106]
revoluta	Peru					Ruíz & Pavón	s.n.	F	isolect
revoluta	Peru					Ruíz & Pavón	s.n.	G	isolect
revoluta	Peru					Ruíz & Pavón	s.n.	G	isolect (G-BOIS)
revoluta	Peru					Ruíz & Pavón	s.n.	G	isolect (G-DEL)
revoluta	Peru	Huánuco				Ruíz & Pavón	s.n.	MA-RUIZP	isolect [3 sheets]

								AVON	
revoluta	Peru	Huánuco				Ruiz & Pavón	s.n.	MA-RUIZP AVON	lectotype
revoluta	Peru	Pasco	Oxapampa, between La Suiza and San Gotardo	2350-2700	21-Nov-82	Smith, D.N.	2748	HAM	
revoluta	Peru	Pasco	Oxapampa, between La Suiza and San Gotardo	2350-2700	21-Nov-82	Smith, D.N.	2748	MO3	
revoluta	Peru	Pasco	Oxapampa, between La Suiza and San Gotardo	2350-2700	21-Nov-82	Smith, D.N.	2748	USM	
revoluta	Peru	Pasco	Oxapampa, pass before La Suiza, 20 km W of Oxapampa	2100-2150	27-Dec-83	Smith, D.N.	5402	USM	
revoluta	Peru	Huánuco	Carpish	2850	9-Nov-38	Stork & Horton	9913	GH	
revoluta	Peru	Huánuco	Carpish	2850	9-Nov-38	Stork & Horton	9913	K3	
revoluta	Peru	Huánuco	Carpish	2850	9-Nov-38	Stork & Horton	9913	UC	
revoluta	Peru	Huánuco	Prov. Leoncio Prado, road from Huánuco, to Tingo Maria to Huánuco, Abra Carpish, just north of tunnel	2720-2800	22-Mar-01	Weigend et al.	5288	HUT2	
risibilis	Colombia	Caquetá	Comisaría del Caquetá	1000	3-Apr-40	Cuatrecasas	9034	COL	at NY [2 sheets]
risibilis	Colombia	Caquetá	Comisaría del Caquetá	1000	3-Apr-40	Cuatrecasas	9034	US	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins, Serra da Juréia		29-Oct-90	Anunciação & Rossi	388	SP	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		17-Oct-90	Anunciação et al.	20	NEU	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		17-Oct-90	Anunciação et al.	20	SP	
rubra	Brazil	Paraná	Serra da Prata, Torre de Prata		8-Dec-98	Barbosa et al.	226	MBM	
rubra	Brazil	São Paulo	Cananéia, Ilha do Cardoso, próximo ao pico do Morro do Cardoso	800	5-Dec-90	Barros & Ribeiro	2054	NEU	
rubra	Brazil	São Paulo	Cananéia, Ilha do Cardoso, próximo ao pico do Morro do Cardoso	800	5-Dec-90	Barros & Ribeiro	2054	SP	
rubra	Brazil	São Paulo	Alta de Serra, Serra da Mar	1000	2-Feb-13	Brade	5805	S	[2 sheets]
rubra	Brazil	São Paulo	Alta de Serra	1000	2-Feb-13	Brade	5805	SP	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins, Alto do maciço, restringa do Rio Verde		22-Nov-90	Catharino et al.	1661	SP	
rubra	Brazil	Paraná	Morro Sete, Mun. Quatro Barras		7-Nov-92	Cervi	3825	NY	
rubra	Brazil	Paraná	Paranaguá, Pico do Marumbi			Chagas & Silva	565	SP	
rubra	Brazil	Paraná	Paranaguá, Pico do Marumbi			Chagas & Silva	565	UPCB	
rubra	Brazil	Paraná	Rio Arraial (Mun. S. José dos Pinhais)		13-Nov-85	Cordeira & Hatschbach	171	MBM	
rubra	Brazil	Paraná	Rio Arraial (Mun. S. José dos Pinhais)		13-Nov-85	Cordeira & Hatschbach	171	MG	
rubra	Brazil	São Paulo	Salesópolis, Casa Grande, Estação Biológica de Boraceia		8-Dec-81	Custodio Filho	719	NEU	
rubra	Brazil	São Paulo	Salesópolis, Casa Grande, Estação Biológica de Boraceia		8-Dec-81	Custodio Filho	719	SP	

rubra	Brazil	São Paulo	Biritiba Mirim, Estação Biologica de Boraceia	890-950	9-Dec-83	Custodio Filho	2039	NEU	
rubra	Brazil	São Paulo	Biritiba Mirim, Estação Biologica de Boraceia	890-950	9-Dec-83	Custodio Filho	2039	SP	
rubra	Brazil	São Paulo	Biritiba Mirim, Estação Biologica de Boraceia	890-950	10-Dec-83	Custodio Filho	2077	SP	
rubra	Brazil	São Paulo	Serra do Mar above Ubatuba	100-299	21-Aug-76	Davis et al.	59825	MBM	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	BM	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	F	
rubra	Brazil	Paraná	Desvio Ypiranga	820	2-Nov-08	Dusén	6965	G	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	GH	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	K	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	MICH	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	MO	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	NY	
rubra	Brazil	Paraná	Desvio Ypiranga	830	1-Nov-09	Dusén	6965	P	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	PH	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	S	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	UC	
rubra	Brazil	Paraná	Desvio Ypiranga	830	2-Nov-08	Dusén	6965	US	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	BM	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	BR	[2 sheets]
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	F	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	G	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	GH	[2 sheets]
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	K	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	LD	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	MO	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	NY	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	P	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	PH	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	S	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	U	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	US	
rubra	Brazil	Paraná	Desvio Ypiranga		31-Oct-14	Dusén	15790	WIS	

rubra	Brazil	Paraná	Desvio Ypiranga, in rupibus humidus		31-Oct-14	Dusén	15790	Z	
rubra	Brazil	Paraná	Desvio Ypiranga	830	31-Oct-14	Dusén	15822	S	
rubra	Brazil	Paraná	Serra do Mar, Ypiranga	830	4-Nov-15	Dusén	17288	G	
rubra	Brazil	Paraná	Serra do Mar, Ypiranga	830	4-Nov-14	Dusén	17288	GH	
rubra	Brazil	Paraná	Serra do Mar, Ypiranga	830	4-Nov-14	Dusén	17288	MO	[2 sheets]
rubra	Brazil	Paraná	Serra do Mar, Ypiranga	830	4-Nov-15	Dusén	17288	S	
rubra	Brazil	Paraná	Desvio Ypiranga	830	27-Oct-08	Dusén	s.n.	GH	iso [2 sheets]
rubra	Brazil	Paraná	Desvio Ypiranga	830	27-Oct-08	Dusén	s.n.	LD	iso
rubra	Brazil	Paraná	Desvio Ypiranga	830	27-Oct-08	Dusén	s.n.	S	lect
rubra	Brazil	Paraná	Desvio Ypiranga	830	18-Dec-14	Dusén	s.n.	S	
rubra	Brazil	São Paulo	Alto da Serra		7 Jan 1901	Edwall	5797	SP	
rubra	Brazil	São Paulo	Caraguatatuba, Parque Estadual da Serra do Mar, Núcleo Caraguatatuba, Base do Gravi		20-Oct-00	Esteves et al.	2770	SP	
rubra	Brazil	Santa Catarina	Blumenau	500	13-Nov-86	Falkenberg	3946	MBM	
rubra	Brazil	São Paulo	Mun. de Iguape, Esado Ecológico de Juréia		20-Jul-83	Figueredo et al.	14732	U	
rubra	Brazil	Paraná	Rui Itarare		6-May-99	Grant, J.R. et al.	3449	SBG	
rubra	Brazil	Paraná	Rui Itarare		6-May-99	Grant, J.R. et al.	3449	SEL	
rubra	Brazil	Paraná	Rui Itarare		6-May-99	Grant, J.R. et al.	3449	US	
rubra	Brazil	Paraná	Guaratuba, Pedra Branca de Araraquara	50-100	17-Oct-64	Hatschbach	11726	F	
rubra	Brazil	Paraná	Guaratuba, Pedra Branca de Araraquara	50-100	17-Oct-64	Hatschbach	11726	MBM	
rubra	Brazil	Paraná	Guaratuba, Pedra Branca de Araraquara	50-100	17-Oct-64	Hatschbach	11726	RB	
rubra	Brazil	Paraná	Guaratuba, Pedra Branca de Araraquara	50-100	17-Oct-64	Hatschbach	11726	UC	
rubra	Brazil	Paraná	Cabeceiras Rio Arraial, Morretes	800-950	11-Nov-65	Hatschbach	13128	MBM	[2 sheets]
rubra	Brazil	Paraná	Cabeceiras Rio Arraial, Morretes	800-950	11-Nov-65	Hatschbach	13128	US	[2 sheets] 1 sheet on loan
rubra	Brazil	Paraná	Serra da Virgem Maria		12-Nov-68	Hatschbach	20289	C	
rubra	Brazil	Paraná	Serra da Virgem Maria		12-Nov-68	Hatschbach	20289	MBM	
rubra	Brazil	Paraná	Rio da Divisa	30	16-Dec-71	Hatschbach	28526	MBM	
rubra	Brazil	Paraná	Rio da Divisa	30	16-Dec-71	Hatschbach	28526	NA	
rubra	Brazil	Paraná	Rio da Divisa	30	16-Dec-71	Hatschbach	28526	UC	
rubra	Brazil	Paraná	Porto de Cima, Morretes		22-Oct-80	Hatschbach	43301	BRIT	

rubra	Brazil	Paraná	Porto de Cima, Morretes		22-Oct-80	Hatschbach	43301	F	
rubra	Brazil	Paraná	Porto de Cima, Morretes		22-Oct-80	Hatschbach	43301	SPF	
rubra	Brazil	Paraná	Porto de Cima, Morretes		22-Oct-80	Hatschbach	43301	MBM	
rubra	Brazil	Paraná	Porto de Cima, Morretes		22-Oct-80	Hatschbach	43301	NY	
rubra	Brazil	Paraná	Piraquara, Banhado		2-Nov-48	Hatschbach	I090	MBM	
rubra	Brazil	Paraná	Piraquara, Banhado		2-Nov-48	Hatschbach	I090	RB	[2 sheets]
rubra	Brazil	Paraná	Piraquara, Banhado		2-Nov-48	Hatschbach	I090	US	
rubra	Brazil	Paraná	Morro Pão de Ló		24-Oct-44	Hatschbach	I47	MBM	
rubra	Brazil	São Paulo	Alto da Serra, Estação Biológica		4-Dec-22	Hoehne	s.n.	SP	
rubra	Brazil	Paraná	Serra Ibitiraquire		8-Oct-67	Imaguire	226	MBM	
rubra	Brazil		Serra Itapura		19 Nov 1890	J. Bot. Rio de Janeiro	10682	RB	[3 sheets]
rubra	Brazil	Paraná	Morretes, P.E. do Pico do Marumbi		18-Sep-97	Kaehler & Silva	18	MBM	
rubra	Brazil	Paraná	Morretes, P.E. do Pico do Marumbi		18-Sep-97	Kaehler & Silva	18	UPCB	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins, margem do Rio Verde, próximo al 2 rio da Trilha da Figueira		26-Jul-91	Kawall & Anunciação	87	SP	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins, Morro de Juréia	300	17-Nov-87	Kirizawa et al.	1933	SP	
rubra	Brazil	Santa Catarina	Palhoça, Morro do Cambirela	800	28-Apr-83	Klein & Breselin	9915	UPCB	
rubra	Brazil	Paraná	Serra do Mar, Maincatira, track branching off from Estrada da Graciosa towards the south.	700-800	24-Oct-89	Kramer & Dubs	10786	Z	
rubra	Brazil	Paraná	Rio Itararé (Mun. Guaratuba)		8-Nov-83	Kummrow	2385	C	
rubra	Brazil	Paraná	Rio Itararé (Mun. Guaratuba)		8-Nov-83	Kummrow	2385	MG	
rubra	Brazil	Paraná	Rio Itararé (Mun. Guaratuba)		8-Nov-83	Kummrow	2385	MBM	
rubra	Brazil	Paraná	Rio Itararé (Mun. Guaratuba)		8-Nov-83	Kummrow	2385	MO	
rubra	Brazil	Paraná	Rio Itararé (Mun. Guaratuba)		8-Nov-83	Kummrow	2385	UPCB	
rubra	Brazil	São Paulo	Boracea, Estação Experimental		19-Dec-40	Lima & da Silva	6033	IAC	
rubra	Brazil	São Paulo	Boracea, Estação Experimental		19-Dec-40	Lima & da Silva	6033	NEU	
rubra	Brazil	São Paulo	Boracea, Estação Experimental		19-Dec-40	Lima & da Silva	6033	SP	[2 sheets]
rubra	Brazil	Paraná	Serra do Mar, Upper Rio Corvo	1000	12-Jan-67	Lindeman & Haas	4071	NY	
rubra	Brazil	Paraná	Serra do Mar, Upper Rio Corvo	1000	12-Jan-67	Lindeman & Haas	4071	U	
rubra	Brazil	São Paulo	Mun. de Bananal, P.N. da Serra da Bocaina, marco 22	1100	23-Jun-78	Martinelli	4669	RB	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		22-Nov-94	Melo et al.	1053	NEU	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		22-Nov-94	Melo et al.	1053	SP	

rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		13-Oct-95	Nicolau et al.	946	NEU	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		13-Oct-95	Nicolau et al.	946	SP	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins, Serra da Juréia		10-Nov-93	Nicolau et al.	1496	SP	
rubra	Brazil	Paraná	Guaricana		15-Oct-83	Oliveira	686	BR	
rubra	Brazil	Paraná	Guaricana		1-May-83	Oliveira	686	GB	
rubra	Brazil	Paraná	Guaricana		1-May-83	Oliveira	686	MBM	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		13-Aug-91	Pereira, D.F. et al.	50	NEU	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		13-Aug-91	Pereira, D.F. et al.	50	SP	
rubra	Brazil	São Paulo	Campo Grande		27 Nov 1902	Puttemans	5798	SP	
rubra	Brazil	Santa Catarina	Brusque, Morro da Bateia	300	27-Oct-47	Reitz	1905	S	
rubra	Brazil	Santa Catarina	Brusque, Morro da Bateia	260	27-Oct-47	Reitz	1905	US	
rubra	Brazil	Santa Catarina	Joinville, Estrada Dona Francisca	650	6-Nov-57	Reitz & Klein	4060	S	
rubra	Brazil	Santa Catarina	Joinville, Estrada Dona Francisca	650	6-Nov-57	Reitz & Klein	4060	US	
rubra	Brazil	Santa Catarina	Blumenau, Morro Spitzkopf	900	23-Oct-59	Reitz & Klein	4131	US	
rubra	Brazil	Santa Catarina	Monte Crista, Garuva, São Francisco do Sul	900	6-Oct-60	Reitz & Klein	10039	US/	not on loan
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		16-Jul-90	Rossi et al.	621	SP	
rubra	Brazil	Paraná	Guaratuba, Serra de Araçatuba	1280	13-Nov-98	Santos et al.	609	MBM	
rubra	Brazil	Paraná	Guaratuba, Serra de Araçatuba	1280	13-Nov-98	Santos et al.	609	UPCB	
rubra	Brazil	São Paulo	Iguape, Estação Ecológica Juréia-Itatins		12-Oct-91	Skorupa et al.	970	SP	
rubra	Brazil	São Paulo	Caraguatatuba, Parque Estadual da Serra do Mar, Núcleo Caraguatatuba, Trilha da Captação		11-Aug-00	Souza et al.	179	SP	
rubra	Brazil	Santa Catarina	Guabiruba, Faz. Renaux-Hering		10-Oct-85	Souza et al.	826	MBM	
rubra	Brazil	São Paulo	São Miguel Arcanjo, P.E. de Carlos Botelho		21-Sep-92	Sugiyama & Kirizawa	1000	NEU	
rubra	Brazil	São Paulo	São Miguel Arcanjo, P.E. de Carlos Botelho		21-Sep-92	Sugiyama & Kirizawa	1000	SP	
rubra	Brazil	São Paulo	Mun. de Sete Barras, Parque Estadual de Carlos Botelho, Estrada Estadual São Miguel Arcanjo - Sete Barras (SP 139)		22-Apr-02	Udulutsch et al.	649	SP	
rubra	Brazil	São Paulo							
rugosa	Venezuela	Bolivar	Macizo del Chimantá	2350	3-Feb-84	Huber & Colella	8754	MO3	
rugosa	Venezuela	Bolivar	Macizo del Chimantá	2350	3-Feb-84	Huber & Colella	8754	NY	[2 sheets]
rugosa	Venezuela	Bolivar	Macizo del Chimantá	2350	3-Feb-84	Huber & Colella	8754	VEN	
rugosa	Venezuela	Bolivar	Macizo del Chimantá, valle amplio en la sección SE del Apacará-tepui	2150	6-Feb-84	Huber et al.	8785	K	

rugosa	Venezuela	Bolivar	Macizo del Chimantá, valle amplio en la sección SE del Apacará-tepui	2150	6-Feb-84	Huber et al.	8785	MO3	
rugosa	Venezuela	Bolivar	Chimantá Massif, Apácará-tepui	2000-2150	20-Jun-53	Steiermark	75803	F	
rugosa	Venezuela	Bolivar	Chimantá Massif, Apácará-tepui	2000-2150	20-Jun-53	Steiermark	75803	NY	[2 sheets]
rugosa	Venezuela	Bolívar	Chimantá Massif, Río Tirica	2185-2210	13-Feb-55	Steiermark & Wurdack	861	F	iso [2 sheets]
rugosa	Venezuela	Bolívar	Chimantá Massif, Río Tirica	2185-2210	13-Feb-55	Steiermark & Wurdack	861	NY	iso [3 sheets]
rugosa	Venezuela	Bolívar	Chimantá Massif, Río Tirica	2185-2210	13-Feb-55	Steiermark & Wurdack	861	VEN	holo [NOT SEEN]
rugosa	Venezuela	Bolivar	Macizo del Chimantá, sección oriental del Chimantá-tepui	2450	7-Feb-83	Steiermark et al.	12881 7	F	
rugosa	Venezuela	Bolivar	Macizo del Chimantá, sección oriental del Chimantá-tepui	2450	7-Feb-83	Steiermark et al.	12881 7	NY	
rugosa	Venezuela	Bolivar	Macizo del Chimantá, sección oriental del Chimantá-tepui	2450	7-Feb-83	Steiermark et al.	12881 7	U	
rugosa	Venezuela	Bolivar	Macizo del Chimantá, sección oriental del Chimantá-tepui	2450	7-Feb-83	Steiermark et al.	12881 7	US3	[2 sheets]
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	BM	iso
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	COL	iso
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	F	iso
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	GH	holo
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	MO	iso
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	U	iso
schultesii	Colombia	N de Santander	Páramo de Fontibón	2600-2750	15-Oct-41	Cuatrecasas et al.	12271	US	iso
schultesii	Colombia	N de Santander	Road from Pamplona to Toledo	2500-2800	28-Feb-27	Killip & Smith	19818	GH	[2 sheets]
schultesii	Colombia	N de Santander	Road from Pamplona to Toledo	2500-2800	28-Feb-27	Killip & Smith	19818	NY	
schultesii	Colombia	N de Santander	Road from Pamplona to Toledo	2500-2800	28-Feb-27	Killip & Smith	19818	US	
schultesii	Colombia	N de Santander	Páramo de Hático, Toledo to Pamplona	2900	12-Mar-27	Killip & Smith	20613	GH	
schultesii	Colombia	N de Santander	Páramo de Hático, Toledo to Pamplona	2900	12-Mar-27	Killip & Smith	20613	US	
schultesii	Colombia	N de Santander			17-Jan-09	Linden	1345	BM	
schultesii	Colombia	N de Santander			17-Jan-09	Linden	1345	OXF	
schultesii	Colombia	N de Santander	Pamplona, Chopá	1400	April 1843	Linden	1345	P	
schultesii	Colombia	N de Santander			17-Jan-09	Linden	1345	W	
schultesii	Colombia	Santander	E de Bucaramanga	2400	18-Dec-48	Molina & Barkley	18-S361	NO	

schultesii	Colombia	Santander	E de Bucaramenga	2400	18-Dec-48	Molina & Barkley	18-S361	US/	not on loan
sodiroana	Ecuador	Carchi	Camaña El Corazón y alrededores Carchi	2200	11-Feb-97	Anton	320	QCA	
sodiroana	Colombia	Nariño	Res. Nat. La Planada, 7 km de Chucunes	1800	15-Nov-87	Benavides	8953	MO	
sodiroana	Colombia	Nariño	Trayecto Pialapi-La Planada	1300-1700	23-Jul-88	Benavides	10122	MO	
sodiroana	Ecuador	Carchi	Chical Trail	1500	26-Jan-77	Boeke	845	AAU	
sodiroana	Ecuador	Carchi	Chical Trail	1500	26-Jan-77	Boeke	845	NY	
sodiroana	Ecuador	Carchi	Chical Trail	1500	26-Jan-77	Boeke	845	QCA	*
sodiroana	Ecuador	Pichincha	Carr. Calacalí - Los Bancos, en Mindo	1500	17-May-97	Carrera	23	QCA	*
sodiroana	Ecuador	Pichincha	Quito, trek from Lloa to Mindo Mature Forest, between Hacienda Pacay and main bridge to Mindo	1400	8-Feb-98	Clark, J.L.	4521	MO3	
sodiroana	Ecuador	Pichincha	Quito, trek from Lloa to Mindo Mature Forest, between Hacienda Pacay and main bridge to Mindo	1400	8-Feb-98	Clark, J.L.	4521	QCNE	*
sodiroana	Colombia	Valle	Cali-Buenaventura hwy, 28 km beyond the junction with the new hwy	1400-1420	28-Aug-76	Croat	38605	MO	
sodiroana	Colombia	Valle	Hoya del Río Digua, Piedra de Moler	900-1180	19-Aug-43	Cuatrecasas	14986	F	
sodiroana	Colombia	Valle	Hoya del Río Digua, Piedra de Moler	900-1180	19-Aug-43	Cuatrecasas	14986	US	
sodiroana	Ecuador	Pichincha	Bosque Protector Mindo	1325-1400	15-Jul-92	Delprete et al.	6100	TEX	
sodiroana	Ecuador	Pichincha	Km 87-84 old road Quito-Santo-Domingo	1200-1300	21-Mar-80	Dodson & Gentry	9725	MO	
sodiroana	Ecuador	Pichincha	Km 87-84 old road Quito-Santo-Domingo	1200-1300	21-Mar-80	Dodson & Gentry	9725	QCNE	
sodiroana	Ecuador	Pichincha	Km 87-84 old road Quito-Santo-Domingo	1200-1300	21-Mar-80	Dodson & Gentry	9725	SEL	[2 sheets]
sodiroana	Ecuador		Between Rio Verde and Rio Blanco		7-Jan-62	Dodson & Thien	1925	AAU	
sodiroana	Ecuador		Between Rio Verde and Rio Blanco		7-Jan-62	Dodson & Thien	1925	MO	
sodiroana	Ecuador		Between Rio Verde and Rio Blanco		7-Jan-62	Dodson & Thien	1925	NY	
sodiroana	Ecuador	Pichincha	Dos Rios, km 90 old road Quito-Santo Domingo	1100	7-Apr-84	Dodson & Thurston	14162	HAM	
sodiroana	Ecuador	Pichincha	Dos Rios, km 90 old road Quito-Santo Domingo	1100	7-Apr-84	Dodson & Thurston	14162	MO	[2 sheets]
sodiroana	Ecuador	Pichincha	Dos Rios, km 90 old road Quito-Santo Domingo	1100	7-Apr-84	Dodson & Thurston	14162	QCNE	[2 sheets]
sodiroana	Colombia	Valle	Arriba del Saladito	200-2200	27-Jan-70	Espinal	3731	CUVC	
sodiroana	Ecuador	Pichincha	27 km from Chiriboga			Fagerlind & Wibom	1925a	S	
sodiroana	Ecuador	Pichincha	27 km from Chiriboga			Fagerlind & Wibom	1925b	S	
sodiroana	Colombia	Putumayo	Mocoa, San Antonio, Alto Campucana	1350	20-Apr-94	Franco et al.	5502	COL	
sodiroana	Colombia	Valle	Río Anchicaya near CVC hydroelectric plant	400-500	15-Dec-81	Gentry	35666	COL	
sodiroana	Colombia	Valle	Río Anchicaya near CVC hydroelectric plant	400-500	15-Dec-81	Gentry	35666	HAM	
sodiroana	Colombia	Valle	Río Anchicaya near CVC hydroelectric plant	400-500	15-Dec-81	Gentry	35666	MO	

sodiroana	Colombia	Nariño	2-8 km E of Junin on Tumaco-Tuquirres rd	1100	26-Jul-86	Gentry et al.	55232	MO	
sodiroana	Colombia	Nariño	2-8 km E of Junin on Tumaco-Tuquirres rd	1100	26-Jul-86	Gentry et al.	55232	U	
sodiroana	Ecuador	Pichincha	Maquipucuna, 5 km E of Nanegal	1630	9-May-90	Gentry et al.	69921	MO3	
sodiroana	Ecuador	Pichincha	Maquipucuna, 5 km E of Nanegal	1630	9-May-90	Gentry et al.	69921	QCNE	
sodiroana	Colombia	Nariño	Mpio. de Ricaurte, Resguardo Indígena Nulpe Medio, Orillas del río Nulpe	715	6-Jan-96	González & Ramírez P.	1554	QCA	
sodiroana	Ecuador	Pichincha	15 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road	1461	26-Feb-02	Grant, J.R. & Torres	4210	G	[3 sheets]
sodiroana	Ecuador	Pichincha	15 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road	1461	26-Feb-02	Grant, J.R. & Torres	4210	NEU	
sodiroana	Ecuador	Pichincha	15 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road	1461	26-Feb-02	Grant, J.R. & Torres	4210	NY	
sodiroana	Ecuador	Pichincha	15 km up the old road Santo Domingo-Quito from where it merges with the new Santo Domingo-Quito road	1461	26-Feb-02	Grant, J.R. & Torres	4210	US	[2 sheets]
sodiroana	Ecuador	Pichincha	Road Nanegal-Nanegalito	1200-1550	24-Jan-74	Harling & Andersson	11575	GB	
sodiroana	Ecuador	Pichincha	Old road Sto. Domingo-Quito	1500	8-May-68	Harling et al.	9221	GB	
sodiroana	Ecuador	Pichincha	Old road Quito-Santo Domingo, 2-9 km NE of turn off to old road out of Alluriquin	1100-1230	2-Feb-82	Luteyn et al.	8733	QCA	*
sodiroana	Ecuador	Pichincha	Old road Quito-Santo Domingo, 2-9 km NE of turn off to old road out of Alluriquin	1100-1230	2-Feb-82	Luteyn et al.	8733	QCNE	
sodiroana	Colombia	Nariño	Altaquer	1000	14-Jun-86	Maas et al.	6528	U	[3 sheets]
sodiroana	Ecuador	Carchi	Vic. Maldonado	1600-1900	13-Apr-77	Madison	3956	NY	
sodiroana	Ecuador	Carchi	Peñas Blancas, 20 km below Maldonado on the Río San Juan	900-1000	27-May-78	Madison et al.	4614	F	
sodiroana	Ecuador	Carchi	Peñas Blancas, 20 km below Maldonado on the Río San Juan	900-1000	27-May-78	Madison et al.	4614	QCA	*
sodiroana	Ecuador	Carchi	Peñas Blancas, 20 km below Maldonado on the Río San Juan	900-1000	27-May-78	Madison et al.	4614	SEL	
sodiroana	Ecuador	Carchi	Environs of Chical, 12 km below Maldonado	1200	30-May-78	Madison et al.	4795	F	
sodiroana	Ecuador	Carchi	Environs of Chical, 12 km below Maldonado	1200	30-May-78	Madison et al.	4795	QCA	
sodiroana	Ecuador	Carchi	Environs of Chical, 12 km below Maldonado	1200	30-May-78	Madison et al.	4795	SEL	
sodiroana	Colombia					Mutis	334	US	
sodiroana	Ecuador	Pichincha	Km 96 Carr. Quito-Santo Domingo		1-Feb-75	Ortíz	20	MO	
sodiroana	Ecuador	Pichincha	Km 96 Carr. Quito-Santo Domingo		1-Feb-75	Ortíz	20	QCA	
sodiroana	Colombia	Nariño	Mpio. de Ricaurte, Trayecto La Planada-San Isidro	1500-2700	16-Nov-91	Ramírez P.	4270	MO3	
sodiroana	Colombia	Cauca	Santa Martha, Bota Caucana, en la vía Mocoa-Pitalito, ca. 5 km del puente del Río Caquetá	1100	25-Jan-90	Ramos et al.	2501	MO	
sodiroana	Colombia	Cauca	Santa Martha, Bota Caucana, en la vía Mocoa-Pitalito, ca. 5 km del puente del Río Caquetá	1100	25-Jan-90	Ramos et al.	2501	U	

sodiroana	Ecuador	Carchi	Tulcan, Res. Indígena Awá	1800	15-Jun-91	Rubio et al.	1636	MO	
sodiroana	Ecuador	Carchi	Tulcan, Res. Indígena Awá	1800	15-Jun-91	Rubio et al.	1636	QCNE	
sodiroana	Ecuador	Pichincha	Camino de Quito a Sto. Domingo de Los Colorados, entre Chiriboga y Dos Ríos	951-1863	4-Feb-44	Scolnik	1616	PH	
sodiroana	Ecuador	Pichincha	Crescit in reg. subtr., sec. Fl. Pilatón		Jan 1889	Sodiro	s.n.	QPLS	[3 sheets]
sodiroana	Colombia	Putumayo	Bank of river Pepino, upstream of the camp Pepinó	800	29-Aug-63	Soejarto	535	GH	
sodiroana	Ecuador	Pichincha	Nanegal, Res. Biol. Maquipucuna	1200-1700	20-May-91	Tipaz & Quelal	154	MO	
sodiroana	Ecuador	Pichincha	Nanegal, Res. Biol. Maquipucuna	1200-1700	20-May-91	Tipaz & Quelal	154	QCNE	
sodiroana	Ecuador					Verleysen	s.n.	QPLS	
sodiroana	Colombia	Nariño	Ricáurte	1300	7-Apr-41	von Sneidern	512	S	[2 sheets]
sodiroana	Ecuador	Pichincha	13.5 km by road W of Pacto	1400	17-Nov-98	Webster	32889	QCNE	
sodiroana	Ecuador	Pichincha	Reserva Maquipucuna, secondary rainforest along Río Tulambi W of Hacienda El Carmen	1250	18-Sep-89	Webster et al.	27733	DAV2	[2 sheets]
sodiroana	Ecuador	Pichincha	Parroquia Nanegal, Bosque Protectora Maquipucuna, disturbed riparian woods on N bank of Río Umachaca, NE of Hacienda El Camen	1250	7-Jul-92	Webster et al.	29065	DAV2	
sodiroana	Ecuador	Pichincha	Ridge between Río Mindo and Río Bagasal	1325-1450	14-Jul-92	Webster et al.	29399	DAV	[2 sheets]
sodiroana	Ecuador	Pichincha	Parroquia Nanegal, Reserva Maquipucuna, secondary riparian forest along Río Umachaca across from Hacienda El Carmen	1250	15-Jan-95	Webster et al.	31346	DAV2	
sodiroana	Ecuador	Pichincha	Parroquia Nanegal, Bosque Protector Maquipucuna, steep slope in secondary rainforest along Río Umachaca	1250	17-Jun-96	Webster et al.	31550	DAV2	
sodiroana	Ecuador	Pichincha	Parroquia Nanegal, Bosque Protector Maquipucuna, steep slope in secondary rainforest along Río Umachaca	1250	17-Jun-96	Webster et al.	31550	QCNE	
sodiroana	Ecuador	Pichincha	Carr. Quito-Chiriboga-Empalme, km 92, desvío a Mulaulte, en borde del carretero y en quebrado de Mulaulte	1200-1300	13-Dec-87	Zak & Jaramillo	3169	HAM	
sodiroana	Ecuador	Pichincha	Carr. Quito-Chiriboga-Empalme, km 92, desvío a Mulaulte, en borde del carretero y en quebrado de Mulaulte	1200-1300	13-Dec-87	Zak & Jaramillo	3169	MO	
sodiroana	Ecuador	Pichincha	Carr. Quito-Aloag-Sto. Domingo	1100-1400	15-Apr-88	Zak & Jaramillo	3458	GB	
sodiroana	Ecuador	Pichincha	Carr. Quito-Aloag-Sto. Domingo	1100-1400	15-Apr-88	Zak & Jaramillo	3458	K3	
sodiroana	Ecuador	Pichincha	Carr. Quito-Aloag-Sto. Domingo	1100-1400	15-Apr-88	Zak & Jaramillo	3458	NY	
sodiroana	Ecuador	Pichincha	Carr. Quito-Aloag-Sto. Domingo	1100-1400	15-Apr-88	Zak & Jaramillo	3458	US4	
stenophylla	Peru	Amazonas	Between Molinopampa and Mendoza	2500	28-Jan-01	Grant, J.R. & Rodriguez	3932	G	
stenophylla	Peru	Amazonas	Between Molinopampa and Mendoza	2500	28-Jan-01	Grant, J.R. & Rodriguez	3932	HUT	
stenophylla	Peru	Amazonas	Between Molinopampa and Mendoza	2500	28-Jan-01	Grant, J.R. & Rodriguez	3932	NEU	

stenophylla	Peru	Amazonas	Between Molinopampa and Mendoza	2500	28-Jan-01	Grant, J.R. & Rodriguez	3932	NY	
stenophylla	Peru	Amazonas	Between Molinopampa and Mendoza	2500	28-Jan-01	Grant, J.R. & Rodriguez	3932	US	
stenophylla	Peru	Amazonas	Cerro de Fraijaco, NE of Tambo de Ventilla	3200-3400	7-Jul-48	Pennell	15861	PH	
stenophylla	Peru	Amazonas	A few km from Molinopampa		14-Mar-98	van der Werff et al.	14955	MO3	
stenophylla	Peru	Amazonas	A few km from Molinopampa		14-Mar-98	van der Werff et al.	14955	U2	
stenophylla	Peru	Amazonas	Chachapoyas, road from Chachapoyas to Mendoza	2400	20-Oct-00	Weigend et al.	2000/901	MSB	not seen
stenophylla	Peru	Amazonas	Chachapoyas, road from Chachapoyas to Mendoza	2400	20-Oct-00	Weigend et al.	2000/901	F2	
stenophylla	Peru	Amazonas	Chachapoyas, road from Chachapoyas to Mendoza	2400	20-Oct-00	Weigend et al.	2000/901	NEU	
stenophylla	Peru	Amazonas	Central Cordillera of the Andes	2700-3300	1-Jan-30	Williams, L.	7582	F	
stenophylla	Peru	Amazonas	Chachapoyas, summit of Cerro Malcabal (Cerro Tumbe)	2850-2900	20-Jul-62	Wurdack	1415	US/	not on loan
stenophylla	Peru	Amazonas	Chachapoyas, summit of Cerro Malcabal (Cerro Tumbe)	2850-2900	20-Jul-62	Wurdack	1415	USM	
subcaudata	Costa Rica	Limon	Talamanca, Bratsi, Aubri, Alto Lari	450	3-Mar-92	Aguilar & Schmidt	1048	CR	
subcaudata	Panama	Chiriqui	Along road between Gualaca and Fortuna Dam, 10.1 mi NW of Los Planes de Hornito	1260	10-Apr-80	Antonio	4190	MO	
subcaudata	Costa Rica	Limon	Talamanca, Bratsi, Aubri, Alto Lari	450	3-Mar-92	Aguilar & Schmidt	1048	MO	
subcaudata	Costa Rica	Limon	Talamanca, Bratsi, Aubri, Alto Lari, Kivut	1250	14-Mar-92	Herrera	5349	MO	
subcaudata	Costa Rica	Limon	Talamanca, Bratsi, Aubri, Alto Lari, Kivut	1500	31-Mar-92	Herrera	5421	CR	
subcaudata	Costa Rica	Limon	Talamanca, Bratsi, Aubri, Alto Lari, Kivut	1500	31-Mar-92	Herrera	5421	DUKE	
subcaudata	Costa Rica	Limon	Talamanca, Bratsi, Aubri, Alto Lari, Kivut	1500	21-Mar-92	Herrera	5421	MO	
subcaudata	Panama	Bocas del Toro	1 km N of Quebrada Arena, Carr. Del Oleoducto	1150	11-May-82	Knapp	5089	MO	
subcaudata	Costa Rica	Cartago	Rio Grande de Orosi	1500	7-May-67	Lent	934	F	
subcaudata	Costa Rica	Cartago	Rio Grande de Orosi	1500	7-May-67	Lent	934	NY	
subcaudata	Costa Rica	Cartago	Hwy 224, 9-11 km E of Orosi and Tapantí	1200		Luteyn	3918	DUKE	[2 sheets]
subcaudata	Costa Rica	Cartago	Hwy 224, 9-11 km E of Orosi and Tapantí	1200		Luteyn	3918	F	
subcaudata	Costa Rica	Cartago	Hwy 224, 9-11 km E of Orosi and Tapantí	1200		Luteyn	3918	GH	
subcaudata	Costa Rica	Cartago	Hwy 224, 9-11 km E of Orosi and Tapantí	1200		Luteyn	3918	NY	
subcaudata	Panama	Bocas del Toro	Fortuna Dam area	1200-1300	6-Mar-86	McPherson	8613	DUKE	
subcaudata	Panama	Bocas del Toro	Fortuna Dam area	1200-1300	6-Mar-86	McPherson	8613	MO	
subcaudata	Panama	Bocas del Toro	Fortuna Dam area	1200-1300	6-Mar-86	McPherson	8636	MO	
subcaudata	Panama	Chiriqui	Valley of El Hornito, vic. Fortuna Dam	1100-1300	26-May-88	McPherson	12530	MO	

subcaudata	Costa Rica	Cartago	Paraíso, P.N. Tapantí	1350	21-Jul-94	Morales et al.	3053	F	
subcaudata	Costa Rica	Cartago	Paraíso, P.N. Tapantí	1350	21-Jul-94	Morales et al.	3053	QCNE	*
subcaudata	Costa Rica	San José	La Hondura	1300-1700	16-Mar-24	Standley	37856	US4	
subcaudata	Costa Rica	Cartago	P.N. Tapantí	1200	2-Jun-95	Umaña et al.	684	F	
subcaudata	Costa Rica	Cartago	P.N. Tapantí	1200	2-Jun-95	Umaña et al.	684	K	
subcaudata	Costa Rica	San José	La Palma	1500	Nov 1902	Wercklé	16492	NY	iso
subcaudata	Costa Rica	San José	La Palma	1500	Nov 1902	Wercklé	16492	US	holo
subcaudata	Costa Rica	Cartago	Río Grande de Orosi about 16 km SSE of bridge at Tapantí	1600	10-Jul-77	Wilbur et al.	22396	DUKE	[3 sheets]
subsessilis	Ecuador	Loja	Yangana-Zumba road	2550	31-Dec-80	Balslev	1288	AAU	
subsessilis	Ecuador	Loja	Yangana-Zumba road	2550	31-Dec-80	Balslev	1288	NY	
subsessilis	Ecuador	Loja	Río Catamayo Drainage, 21 km S of Vilcabamba		16-Feb-45	Fosberg & Giler	23097	NO	
subsessilis	Ecuador	Loja	Río Catamayo Drainage, 21 km S of Vilcabamba		16-Feb-45	Fosberg & Giler	23097	US/	not on loan
subsessilis	Ecuador	Loja	Carr. Yangana-Valladolid, antes del refugio de Quebrada Honda	2720	8-Oct-95	Garmendia & Paredes	678	QCNE	
subsessilis	Ecuador	Loja	Carr. Yangana-Valladolid, antes del refugio de Quebrada Honda	2720	8-Oct-95	Garmendia & Paredes	684	QCA	
subsessilis	Ecuador	Loja	Carr. Yangana-Valladolid, antes del refugio de Quebrada Honda	2720	8-Oct-95	Garmendia & Paredes	684	QCNE	
subsessilis	Ecuador	Loja	Nudo de Sabanilla, 21.5 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3982	LOJA	
subsessilis	Ecuador	Loja	Nudo de Sabanilla, 21.5 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3982	NEU	
subsessilis	Ecuador	Loja	Nudo de Sabanilla, 21.5 km S of Yangana	2486	10-Feb-01	Grant, J.R. & Struwe	3982	QCNE	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	G	[2 sheets]
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	LOJA	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	MO	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	NEU	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	NY	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	QCA	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	QCNE	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	S	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	SBG	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	14-Feb-01	Grant, J.R. & Struwe	4020	US	[2 sheets]
subsessilis	Ecuador	Loja	Km 9.5 on road from Yangana- Cerro Toledo	2480	14-Feb-01	Grant, J.R. & Struwe	4025	LOJA	
subsessilis	Ecuador	Loja	Km 9.5 on road from Yangana- Cerro Toledo	2480	14-Feb-01	Grant, J.R. & Struwe	4025	NEU	

subsessilis	Ecuador	Loja	Km 9.5 on road from Yangana- Cerro Toledo	2480	14-Feb-01	Grant, J.R. & Struwe	4025	NY	
subsessilis	Ecuador	Loja	Km 9.5 on road from Yangana- Cerro Toledo	2480	14-Feb-01	Grant, J.R. & Struwe	4025	QCNE	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	2-Nov-02	Grant, J.R. et al.	4267	MO	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	2-Nov-02	Grant, J.R. et al.	4267	NEU	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	2-Nov-02	Grant, J.R. et al.	4267	NY	
subsessilis	Ecuador	Loja	Km 8.9 on road from Yangana- Cerro Toledo	2450	2-Nov-02	Grant, J.R. et al.	4267	US	
subsessilis	Ecuador	Loja	Cerro Bangala, ca 10 km E of Yangana	2500-2700	18-Oct-88	Harling	25318	GB	
subsessilis	Ecuador	Loja	W slope of Nudo de Sabanilla	2600	6-Feb-85	Harling & Andersson	21731	GB	
subsessilis	Ecuador	Loja	W slope of Nudo de Sabanilla	2600	6-Feb-85	Harling & Andersson	21731	QCA	*
subsessilis	Ecuador	Loja	W slope of Nudo de Sabanilla	2500	3-Apr-85	Harling & Andersson	23593	GB	
subsessilis	Ecuador	Loja	W slope of Nudo de Sabanilla	2500	3-Apr-85	Harling & Andersson	23593	QCA	
subsessilis	Ecuador	Loja	Cerro Toledo, rd to "La Torre"	2500	7-Apr-85	Harling & Andersson	23848	GB	
subsessilis	Ecuador	Loja	Cerro Toledo, rd to "La Torre"	2500	7-Apr-85	Harling & Andersson	23848	QCA	*
subsessilis	Ecuador	Loja	Yangana-Nudo de Sabanilla	2500-2600	16-Oct-88	Harling & E. Madsen	25261	AAU	
subsessilis	Ecuador	Loja	Yangana-Nudo de Sabanilla	2500-2600	16-Oct-88	Harling & E. Madsen	25261	GB	
subsessilis	Ecuador	Loja	Yangana-Nudo de Sabanilla	2200-2400	13-Feb-93	Harling & Ståhl	26373	GB	
subsessilis	Ecuador	Loja	Yangana-Nudo de Sabanilla	2200-2400	13-Feb-93	Harling & Ståhl	26373	QCA	*
subsessilis	Ecuador	Loja	Yangana-Nudo de Sabanilla	2200-2400	13-Feb-93	Harling & Ståhl	26373	S	
subsessilis	Ecuador	Loja	Yangana-Cerro Toledo	2750-2850	28-Dec-88	Jørgensen & J. Madsen	65728	AAU	
subsessilis	Ecuador	Loja	Yangana-Cerro Toledo	2750-2850	28-Dec-88	Jørgensen & J. Madsen	65728	QCA	*
subsessilis	Ecuador	Loja	Yangana-Cerro Toledo	2750-2850	28-Dec-88	Jørgensen & J. Madsen	65728	QCNE	*
subsessilis	Ecuador	Loja	Yangana-Cerro Toledo	2510	14-Nov-90	Jørgensen et al.	92722	AAU	
subsessilis	Ecuador	Loja	Yangana-Cerro Toledo	2510	14-Nov-90	Jørgensen et al.	92722	QCA	*
subsessilis	Ecuador	Loja	Yangana-Cerro Toledo	2510	14-Nov-90	Jørgensen et al.	92722	QCNE	
subsessilis	Ecuador	Loja	Road S out of Loja ca. 14 km S of Yangana	2460	16-Jan-81	Luteyn & Clements	7978	NY	
subsessilis	Ecuador	Loja	Cordillera de Sabanilla, ca. 15 km S of Yangana	2480	31-Dec-80	Madison & Besse	7497	SEL	
subsessilis	Ecuador	Loja	Beside the road from Yangana to 'Cerro Toledo'	2500	1-Jan-98	Matt	12	ER	
subsessilis	Ecuador	Loja	Beside the road from Yangana to 'Cerro Toledo'	2500	1-Jan-98	Matt	13	ER	
subsessilis	Ecuador	Loja	Limite del P.N. Podocarpus, carretera Yangana - Cerro Toledo	2450	1-Jan-95	Palacios	13016	MO3	
subsessilis	Ecuador	Loja	Limite del P.N. Podocarpus, carretera Yangana - Cerro Toledo	2450	1-Jan-95	Palacios	13016	QCNE	

subsessilis	Ecuador	Loja	Between Tambo Cachiyacu, La Entrada, and Nudo de Sabanilla	2500-3500	7-Oct-43	Steiermark	54436	F	iso
subsessilis	Ecuador	Loja	Between Tambo Cachiyacu, La Entrada, and Nudo de Sabanilla	2500-3500	7-Oct-43	Steiermark	54436	NY	iso [sheet 1, on loan]
subsessilis	Ecuador	Loja	Between Tambo Cachiyacu, La Entrada, and Nudo de Sabanilla	2500-3500	7-Oct-43	Steiermark	54436	NY	iso [sheet 2, not on loan; at NY!]
subsessilis	Ecuador	Loja	Between Nudo de Sabanilla and Río Cachiyacu	3000-3500	17-Oct-43	Steiermark	54758	F	
subsessilis	Ecuador	Loja	W slopes of Cordillera de Condor	2000-3000	19-Oct-43	Steiermark	54805	F	
subsessilis	Ecuador	Loja	Between Tambo Cachiyacu, La Entrada, and Nudo de Sabanilla	2500-3500	7-Oct-43	Steiermark	54436	US	holo
tabula-fluctivagifolia	Peru	Huánuco	SW slope of the Río LlullaPichis watershed, ascent of Cerros del Sira, in open dry sites in reduced elfin forest (monte chico) just above camp 5 (Tabano) on way to the summit of the Sira (Cumbre-camp 6)	2000	30-Jul-69	Dudley	13473	NA	[NA at WU]
tabula-fluctivagifolia	Peru	Huánuco	Pachitea, region of Pucallpa, western part of the "Sira mountains" and adjacent lowland, c. 24-26 km SE to c. 26 km ESE of Puerto Inca, from the beginning of the mountain rain forest next to the "Campamento Pato Rojo"	1080	13-Jun-88	Wallnöfer	18-13688	U	
tabula-fluctivagifolia	Peru	Huánuco	Pachitea, region of Pucallpa, western part of the "Sira mountains" and adjacent lowland, c. 24-26 km SE to c. 26 km ESE of Puerto Inca, from the beginning of the mountain rain forest next to the "Campamento Pato Rojo"	1080	13-Jun-88	Wallnöfer	18-13688	WU	
tabula-fluctivagifolia	Peru	Huánuco	Southwestern slope of the Río LlullaPichis watershed, on the ascent of Cerros del Sira, at edge of steep embankment near Camp 3 (Laguna)	1290	15-Jul-69	Wolfe	12333	F	holo
tabula-fluctivagifolia	Peru	Huánuco	Southwestern slope of the Río LlullaPichis watershed, on the ascent of Cerros del Sira, at edge of steep embankment near Camp 3 (Laguna)	1290	15-Jul-69	Wolfe	12333	NA	iso [NA at WU]
tabula-fluctivagifolia	Peru	Huánuco	Southwestern slope of the Río LlullaPichis watershed, on the ascent of Cerros del Sira, at edge of steep embankment near Camp 3 (Laguna)	1290	15-Jul-69	Wolfe	12333	NY	iso
tabula-fluctivagifolia	Peru	Huánuco	Southwestern slope of the Río LlullaPichis watershed, on the ascent of Cerros del Sira, at edge of steep embankment near Camp 3 (Laguna)	1290	15-Jul-69	Wolfe	12333	USM	iso
tahuantinsuyana	Peru	Pasco	Oxapampa, 2-4 km E of Oxapampa	1820-1920	11-Mar-84	Smith, D.N. et al.	6282	NEU	
tahuantinsuyana	Peru	Pasco	Oxapampa, 2-4 km E of Oxapampa	1820-1920	11-Mar-84	Smith, D.N. et al.	6282	NY	
tahuantinsuyana	Peru	Pasco	Oxapampa, 2-4 km E of Oxapampa	1820-1920	11-Mar-84	Smith, D.N. et al.	6282	U	
tahuantinsuyana	Peru	Pasco	Oxapampa, 2-4 km E of Oxapampa	1820-1920	11-Mar-84	Smith, D.N. et al.	6282	USM	
tahuantinsuyana	Peru	Junín	Chanchamayo, Mina Pichita, above San Ramon	1800	15-Mar-86	van der Werff et al.	8657	USM	

tahuantinsuyana	Peru	Junín	Yaupi	1600	19-Jul-61	Woytkowski	6672A	MO	
tahuantinsuyana	Peru	Junín	Yaupi	1600	19-Jul-61	Woytkowski	6672A	U	
thamnoides	Jamaica	St. Andrew	Hardware Gap, Blue Mountains	1300	26-Jul-97	Acevedo-Rodríguez et al.	9700	NY	
thamnoides	Jamaica	St. Andrew	Hardware Gap, Blue Mountains	1300	26-Jul-97	Acevedo-Rodríguez et al.	9700	US	US/
thamnoides	Jamaica	St. Andrew	Mt. Horeb	1296	20-Jul-60	Adams	7671	BM	
thamnoides	Jamaica	St. Andrew	Mt. Horeb	1296	20-Jul-60	Adams	7671	UWI	
thamnoides	Jamaica	St. Andrew	Hardware Gap	1220	1-Dec-52	Asprey	523	UWI	
thamnoides	Jamaica	Portland	John Crow Mountains, Proctor's Pool	763	27-Jul-63	Crosby et al.	979	UWI	
thamnoides	Jamaica		Vinegar Hill		15 Aug 1894	Harris	5352	BM	
thamnoides	Jamaica		Vinegar Hill		15 Aug 1894	Harris	5353	US	
thamnoides	Jamaica		Propre Vinegar Hill		16 Sep 1895	Harris	6048	F	
thamnoides	Jamaica		Road to St. Georges		9 Aug 1899	Harris	7718	F	[2 sheets]
thamnoides	Jamaica		Road to St. Georges		9 Aug 1899	Harris	7718	GOET	
thamnoides	Jamaica		Road to St. Georges		9 Aug 1899	Harris	7718	NY	
thamnoides	Jamaica		Gordon Town		1-Mar-09	Hart	1417	S	lect [hartii]
thamnoides	Jamaica		Gordon Town		1-Mar-09	Hart	1417	US	isolect [hartii] [2 sheets]
thamnoides	Jamaica		Vic of Morce's Gap	1500	23-Jun-04	Maxon	2772	US	
thamnoides	Jamaica					McFadyen	s.n.	K	holo
thamnoides	Jamaica	St. Andrew	Fairy Glade area, Mt. Horeb	1296	7-May-59	Proctor	19665	BM	
thamnoides	Jamaica	St. Andrew	Fairy Glade area, Mt. Horeb	1296	7-May-59	Proctor	19665	GH	
thamnoides	Jamaica	Portland	Ecclesdown, John Crow Mts.	457-762	27-Jul-63	Proctor	23868	BM	
thamnoides	Jamaica	Portland	Ecclesdown, John Crow Mts.	457-762	27-Jul-63	Proctor	23868	GH	
thamnoides	Jamaica	Portland	NW slopes of Joe Hill	305-686	13-Jul-65	Proctor	26539	BM	
thamnoides	Jamaica	Portland	NW slopes of Joe Hill	305-686	13-Jul-65	Proctor	26539	MICH	
thamnoides	Jamaica	Portland	NW slopes of Joe Hill	305-686	13-Jul-65	Proctor	26539	TEX	
thamnoides	Jamaica	St. Andrew	Fairy Glade area on Mt. Horeb			Weaver	952	DUKE	not seen

thamnoides	Jamaica	Portland	Joe Hill, 1-1.5 km SE of Windsor	610	13-Jul-65	Webster & Barkley	13730	BM	
thamnoides	Jamaica	Portland	Joe Hill, 1-1.5 km SE of Windsor	610	13-Jul-65	Webster & Barkley	13730	DAV	[2 sheets]
thamnoides	Jamaica		Mr. Collings Plantation			Wiles	s.n.	G	
umerulus	Colombia	Boyacá	Sierra Nevada del Cocuy, in cloud forest near Bocota, by path to Bachira	2200	15-Aug-57	Grubb et al.	708	K	
umerulus	Colombia	Boyacá	Sierra Nevada del Cocuy, in cloud forest near Bocota, by path to Bachira	2200	25-Aug-57	Grubb et al.	708	US	
umerulus	Colombia	Boyacá	Vereda El Carare		3-Aug-78	Snow	22	COL	
valerii	Colombia	Antioquia	Frontino, Corregimiento Nutibara, Reg. Muri	1800	9-Jul-86	Acevedo-Rodríguez et al.	1119	NY	valerii DNA
valerii	Colombia	Antioquia	Frontino, Corregimiento Nutibara, Reg. Muri	1800	9-Jul-86	Acevedo-Rodríguez et al.	1119	US	
valerii	Costa Rica	San José	Cantón de Pérez Zeledón, San José	1650	8-Jul-96	Alfaro	559	NY	
valerii	Costa Rica	San José	San Jeronimo	1490	1-Mar-86	Almeda & Anderson	5216	C	
valerii	Costa Rica	San José	San Jeronimo	1490	1-Mar-86	Almeda & Anderson	5216	CAS	
valerii	Costa Rica	San José	San Jeronimo	1490	1-Mar-86	Almeda & Anderson	5216	MO	
valerii	Costa Rica	San José	San Jeronimo	1490	1-Mar-86	Almeda & Anderson	5216	TEX	
valerii	Costa Rica	Cartago	13 km from Tejar cutoff to El Empalme		8-Jun-72	Almeda & Wilbur	1636	DUKE	
valerii	Costa Rica	Cartago	13 km from Tejar cutoff to El Empalme		8-Jun-72	Almeda & Wilbur	1636	GH	
valerii	Costa Rica	Cartago	13 km from Tejar cutoff to El Empalme		8-Jun-72	Almeda & Wilbur	1636	US	
valerii	Costa Rica	Cartago	Hwy 224 on property of ICE hydroelectric plant, ca. 11-20 km E of Orosi	1500-1700	29-Dec-73	Almeda et al.	2188	DUKE	[2 sheets]
valerii	Costa Rica	Cartago	Hwy 224 on property of ICE hydroelectric plant, ca. 11-20 km E of Orosi	1500-1700	29-Dec-73	Almeda et al.	2188	F	[2 sheets]
valerii	Costa Rica	Cartago	14 km from Tejar Int.		2-Jul-77	Almeda et al.	2850	CAS	[2 sheets]
valerii	Costa Rica	San José	13-16 km N of San Isidro de Coronado	1700-1800	5-Jul-77	Almeda et al.	2892	CAS	[2 sheets]
valerii	Costa Rica	Cartago	8 km beyond Tejar turnoff	1281	2-Aug-77	Almeda et al.	3369	CR	
valerii	Costa Rica	Cartago	8 km beyond Tejar turnoff	3369	2-Aug-77	Almeda et al.	3369	MO	
valerii	Costa Rica	San José	Between Zurci Tunnel and toll booth	2000	3-Aug-94	Alverson & Price	2699	CR	
valerii	Costa Rica	Puntarenas	Coto Brus, J.B. Rob. & Cat. Wilson, Cordillera de Talamanca	1200-1300	1-Jul-95	Angulo	401	CR	
valerii	Costa Rica	Puntarenas	Coto Brus, J.B. Rob. & Cat. Wilson, Cordillera de Talamanca	1200-1300	1-Jul-95	Angulo	401	INB	
valerii	Costa Rica	Cartago	El Muneco, along Rio Sombrero	1500	28-Jul-83	Barringer & Christenson	4155	F	[2 sheets]
valerii	Costa Rica	Cartago	El Muneco, along Rio Sombrero	1500	28-Jul-83	Barringer & Christenson	4155	MO	

valerii	Costa Rica	Cartago	El Muneco, along Rio Sombrero	1500	28-Jul-83	Barringer & Christenson	4155	TEX	
valerii	Costa Rica	San José	Between Bajo La Hondura and Alto La Palma	1400-1500	19-Jul-83	Barringer et al.	3970	CAS	
valerii	Costa Rica	San José	Between Bajo La Hondura and Alto La Palma	1400-1500	19-Jul-83	Barringer et al.	3970	COL	at NY
valerii	Costa Rica	San José	Between Bajo La Hondura and Alto La Palma	1400-1500	19-Jul-83	Barringer et al.	3970	DUKE	
valerii	Costa Rica	San José	Between Bajo La Hondura and Alto La Palma	1400-1500	19-Jul-83	Barringer et al.	3970	F	
valerii	Costa Rica	San José	Between Bajo La Hondura and Alto La Palma	1400-1500	19-Jul-83	Barringer et al.	3970	NY	
valerii	Costa Rica	Heredia	P.N. Braulio Carillo, 7 km after tunnel	1200-1400	5-Apr-91	Bittner & Berndt	911	B	
valerii	Costa Rica	Heredia	P.N. Braulio Carillo, 7 km after tunnel	1200-1400	5-Apr-91	Bittner & Berndt	911	CR	
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	BM	
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	DUKE	
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	F	[2 sheets]
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	G	[2 sheets]
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	MO	
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	NY	
valerii	Costa Rica	Alajuela	Falls of the Rio La Paz 7 km below Varablanca	1250	11-Aug-71	Burger & Burger	8007	US	
valerii	Costa Rica	San José	La Palma area, NE of San Jeronimo	1500	4-Feb-77	Burger & Visconti	10214	AAU	
valerii	Costa Rica	San José	La Palma area, NE of San Jeronimo	1500	4-Feb-77	Burger & Visconti	10214	CAS	
valerii	Costa Rica	San José	La Palma area, NE of San Jeronimo	1500	4-Feb-77	Burger & Visconti	10214	F	[2 sheets]
valerii	Costa Rica	San José	La Palma area, NE of San Jeronimo	1500	4-Feb-77	Burger & Visconti	10214	MO	
valerii	Costa Rica	Cartago	El Empalme		30-Sep-52	Carpenter	562	F	
valerii	Costa Rica	Cartago	Tapantí	1300-1700	26-Oct-83	Chacón et al.	1539	DUKE	
valerii	Costa Rica	Cartago	Tapantí	1300-1700	26-Oct-83	Chacón et al.	1539	U	
valerii	Costa Rica	Heredia	7.5 km N of Varablanca, vic. Rio La Paz Grande	1270-1350	22-Jun-76	Croat	36030	CR	
valerii	Costa Rica	Heredia	7.5 km N of Varablanca, vic. Rio La Paz Grande	1270-1350	22-Jun-76	Croat	36030	MO	
valerii	Costa Rica	Heredia	7.5 km N of Varablanca, vic. Rio La Paz Grande	1270-1350	22-Jun-76	Croat	36030	US	
valerii	Costa Rica	Heredia	P.N. Braulio Carillo, Orillas de la carretera a Guápiles, 10 km después del Túnel Zurquí	1000	23-Oct-92	Fernández	456	DUKE	
valerii	Costa Rica	Cartago	Paraiso, Valle del Reventazón, Orosi, Río Macho, en Quinta El Rosario y camino al Embalse	1100	8-Sep-93	Fernández	1206	INB	
valerii	Costa Rica	Heredia	Cerca al Volcán Poás	2000-2200	26-Jul-62	Ferreyra	14740	NY	
valerii	Costa Rica	Cartago	Tapantí	1250-1350	7-Jul-64	Ferreyra & Davis	15686	NY	
valerii	Costa Rica	San José	13 km N de San Isidro	1500	30-Jul-64	Ferreyra & Davis	15997	NY	

valerii	Costa Rica	Cartago	Bosques de El Muñeco	1200	9-Jul-82	Gómez-Laurito	8691	F	
valerii	Costa Rica		La Palma		5-Feb-22	Greenman & Greenman	5489	MO	[2 sheets]
valerii	Costa Rica	Cartago	Turrialba, Tayutic, Jicotea	1800	21-Jun-95	Herrera & Martínez	8042	F	
valerii	Costa Rica	San José	7.4 km N of san Jeronimo at La Palma	1400-1500	13-Jan-87	Hill et al.	17751	NY	
valerii	Costa Rica	Heredia	30 km E de la Catarata del Angel, Río La Paz	1325	26-Jul-63	Jiménez, A.	967	F	
valerii	Costa Rica	Heredia	30 km E de la Catarata del Angel, Río La Paz	1325	26-Jul-63	Jiménez, A.	967	NY	
valerii	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Jiménez, A.	2022	F	[2 sheets]
valerii	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Jiménez, A.	2022	GH	[2 sheets]
valerii	Costa Rica	San José	13 km NW de San Isidro del General	1500	30-Jul-64	Jiménez, A.	2204	CAS	
valerii	Costa Rica	San José	13 km NW de San Isidro del General	1500	30-Jul-64	Jiménez, A.	2204	F	[2 sheets]
valerii	Costa Rica	San José	13 km NW de San Isidro del General	1500	30-Jul-64	Jiménez, A.	2204	WS	[2 sheets]
valerii	Costa Rica	San José	Cascajal		1-Jul-19	Lankester	125	K	
valerii	Costa Rica	San José	Cascajal		1-Jun-19	Lankester	293	K	[2 sheets]
valerii	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Lent	26	DAV	
valerii	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Lent	26	NY	
valerii	Costa Rica	San José	Above Río Hondura, Alto La Palma	1560	1-Oct-67	Lent	1347	F	[2 sheets]
valerii	Costa Rica	San José	Tarrazu, Faja Costeña del valle de Parrita, Esquipulas de San Lorenzo	220	14-Jul-93	Lépiz	36	CR	
valerii	Costa Rica	San José	Tarrazu, Faja Costeña del valle de Parrita, Esquipulas de San Lorenzo	220	14-Jul-93	Lépiz	36	INB	
valerii	Costa Rica	Alajuela	Along Hwy 9, N out of Vara Blanca	1000-1400	1-Jun-73	Luteyn	3907	DUKE	[3 sheets]
valerii	Costa Rica	Alajuela	Along Hwy 9, N out of Vara Blanca	1000-1400	1-Jun-73	Luteyn	3907	F	
valerii	Costa Rica	Alajuela	Along the road from Cariblanco to Laguna Hule	750-900	16-Dec-74	Luteyn & Wilbur	4292	DUKE	
valerii	Costa Rica	Heredia	Cinchona, 5 km S of Cariblanco	1350	15-Aug-74	Maas	1340	F	
valerii	Costa Rica	Heredia	Cinchona, 5 km S of Cariblanco	1350	15-Aug-74	Maas	1340	GH	
valerii	Costa Rica	Heredia	Cinchona, 5 km S of Cariblanco	1350	15-Aug-74	Maas	1340	U	[2 sheets]
valerii	Costa Rica	Cartago	Ref. Fauna Silv. Tapantí	1350-1400	19-Feb-91	Maas & Maas	7987	CR	
valerii	Costa Rica	Cartago	Ref. Fauna Silv. Tapantí	1350-1400	19-Feb-91	Maas & Maas	7987	F	
valerii	Costa Rica	Cartago	Ref. Fauna Silv. Tapantí	1350-1400	19-Feb-91	Maas & Maas	7987	MIN	
valerii	Costa Rica	San José	La Palma on the rd to La Hondura	1500-1700	17-Jul-23	Maxon & Harvey	7918	US	
valerii	Costa Rica	Heredia	P.N. Braulio Carillo, 3 km del túnel Zurquí, carretera a Guápiles	1200	10-Feb-93	Morales et al.	1065	F	
valerii	Costa Rica	Heredia	P.N. Braulio Carillo, 3 km del túnel Zurquí, carretera a Guápiles	1200	10-Feb-93	Morales et al.	1065	INB	

valerii	Costa Rica	Heredia	P.N. Braulio Carillo, 3 km del túnel Zurquí, carretera a Guápiles	1200	10-Feb-93	Morales et al.	1065	NY	
valerii	Costa Rica	San José	Road to Bajo La Hondora, 0.5 km from Parque Braulio Carillo	1500	30-Apr-84	Murphy	796	DUKE	
valerii	Costa Rica	San José	Road to Bajo La Hondora, 0.5 km from Parque Braulio Carillo	1500	30-Apr-84	Murphy	796	F	
valerii	Costa Rica	San José	Road to Bajo La Hondora, 0.5 km from Parque Braulio Carillo	1500	30-Apr-84	Murphy	796	MO	
valerii	Costa Rica	San José	Along road to Bajo La Hondura, ca. 0.5 km from P. Braulio Carillo	1500	30-May-84	Murphy	1320	DUKE	
valerii	Costa Rica	Cartago	Vallée du Rancho Redondo, vers une S-W de l'Irazu	1800	April 1889	Pittier	1153	BR	
valerii	Costa Rica	Cartago	Vallée du Rancho Redondo, vers une S-W de l'Irazu	1800	April 1889	Pittier	1153	M	
valerii	Costa Rica	San José	La Palma	1500	4-Oct-68	Pohl et al.	11204	MO	
valerii	Costa Rica	Alajuela	Cariblanco, 1 miles S of waterfall	900	18-Jun-72	Primack	107	DUKE	
valerii	Costa Rica	San José	Bajo de la Rosa, above Las Nubes		28-Jul-57	Rodríguez C.	511	MICH	
valerii	Costa Rica	San José	Bajo de la Rosa, above Las Nubes		28-Jul-57	Rodríguez C.	511	UC	
valerii	Costa Rica	Alajuela	Rio Angel at falls, between La Cinchona & Montana Azul	1494	13-Aug-61	Rosbach	3741	GH	
valerii	Costa Rica	Alajuela	La Peña de Zarcero	1675	30-Jul-38	Smith, A.	H1001	F	[2 sheets]
valerii	Costa Rica	Alajuela	La Piña de Zarcero	1675	30-Jul-38	Smith, A.	H1001	GH	
valerii	Costa Rica	Alajuela	La Piña de Zarcero	1675	30-Jul-38	Smith, A.	H1001	MO	
valerii	Costa Rica	Alajuela	La Piña de Zarcero	1675	30-Jul-38	Smith, A.	H1001	NY	
valerii	Costa Rica	San José	P.N. Braulio Carrillo, La ventana to Bajo La Hondura	1100-1300	4-Sep-90	Solomon	19153	MO	[2 sheets]
valerii	Costa Rica	San José	La Palma		7-Aug-23	Stevens, F.L.	279	US	
valerii	Costa Rica	Alajuela	Road from San Ramón N through Balsa	1050-1150	10-Sep-79	Stevens, W.D.	14211	DUKE	
valerii	Costa Rica	Alajuela	Road from San Ramón N through Balsa	1050-1150	10-Sep-79	Stevens, W.D.	14211	F	
valerii	Costa Rica	Alajuela	Road from San Ramón N through Balsa	1050-1150	10-Sep-79	Stevens, W.D.	14211	MO	
valerii	Costa Rica	Alajuela	Road from San Ramón N through Balsa	1050-1150	10-Sep-79	Stevens, W.D.	14211	TEX	
valerii	Costa Rica	Alajuela	Road to Los Angeles, 17 km NW of iglesia in San Ramón	1129	3-Jun-72	Stone	3310	CAS	
valerii	Costa Rica	Alajuela	Road to Los Angeles, 17 km NW of iglesia in San Ramón	1128	3-Jun-72	Stone	3310	DUKE	[2 sheets]
valerii	Costa Rica	Alajuela	Road to Los Angeles, 17 km NW of iglesia in San Ramón	1128	3-Jun-72	Stone	3310	F	
valerii	Costa Rica	Cartago	On road from Orosi to Tucurrique		17-Jul-81	Taylor, C.	145	DUKE	
valerii	Costa Rica	Cartago	P.N. Tapantí, Valle+D700 del Reventazón	1400	20-Jul-94	Taylor, C.	205	CR	
valerii	Costa Rica	San José	Slopes between Volcán Barba and Volcán Irazú to the N of San José	1600-1700	5-Aug-81	Taylor, C.	947	DUKE	
valerii	Costa Rica	San José	N of San José along the road to Bajo la Hondura	1500	30-Apr-84	Taylor, C.	2873	DUKE	
valerii	Costa Rica	San José	N of San José along the road to Bajo la Hondura	1500	30-May-84	Taylor, C.	3772	DUKE	
valerii	Costa Rica	Heredia	35 km NE of Alajuela	2500	18-Aug-67	Taylor, R.J.	4533	NY	
valerii	Costa Rica	Cartago	Tapantí, Rio Grande de Orosi	1252	7-Jul-64	Tessene	1294	WIS	

valerii	Costa Rica	Cartago	El Muneco	1300-1500	9-Jul-82	Todzia & Pohl	1901	NY	
valerii	Costa Rica	Cartago	El Muneco	1300-1500	9-Jul-82	Todzia & Pohl	1901	TEX	
valerii	Costa Rica	Alajuela	N of San Ramon between Los Angeles and 4 km beyond Río Balsa	1100-1200	27-Jun-72	Utlley	371	DUKE	
valerii	Costa Rica	San José	La Palma up to Bajo la Hondura	1400-1500	17-Oct-74	Utlley & Utlley	1417	CR	
valerii	Costa Rica	San José	La Palma up to Bajo la Hondura	1400-1500	17-Oct-74	Utlley & Utlley	1417	DUKE	
valerii	Costa Rica	San José	La Palma up to Bajo la Hondura	1400-1500	17-Oct-74	Utlley & Utlley	1417	MO	
valerii	Costa Rica	San José	La Palma up to Bajo la Hondura	1400-1500	17-Oct-74	Utlley & Utlley	1417	NY	
valerii	Costa Rica	San José	Road between Tapantí and the Tausito-Selva area	1400-1500	25-Aug-75	Utlley & Utlley	3003	F	
valerii	Costa Rica	San José	Road between Tapantí and the Tausito-Selva area	1400-1500	25-Aug-75	Utlley & Utlley	3003	MO	
valerii	Costa Rica	San José	La Hondura de San José	1300	15-Aug-33	Valerio	692	F	holo
valerii	Costa Rica	San José	Tarrazú, Cerro Pito	1300-1400	8-Jul-97	Valverde et al.	72	K	
valerii	Costa Rica	San José	Vazquez de Coronado, Cordillera Central, Túnel Zurqui, por la pista	1650	3-Aug-94	Vargas	434	INB	Vargas, H?
valerii	Costa Rica	San José	Vazquez de Coronado, Cordillera Central, Túnel Zurqui, por la pista	1650	3-Aug-94	Vargas	434	NY	Vargas, H?
valerii	Costa Rica	Heredia	1.5 mi N of Vara Blanca on rd to San Miguel		1-Aug-68	Weaver	1404	DUKE	
valerii	Costa Rica	Heredia	1.5 mi N of Vara Blanca on rd to San Miguel		7-Aug-68	Weaver	1404	MICH	
valerii	Costa Rica	Heredia	1.5 mi N of Vara Blanca on rd to San Miguel		7-Aug-68	Weaver	1405	DUKE	[2 sheets]
valerii	Costa Rica	Heredia	1.5 mi N of Vara Blanca on rd to San Miguel		7-Aug-68	Weaver	1405	GH	
valerii	Costa Rica	Heredia	1.5 mi N of Vara Blanca on rd to San Miguel		7-Aug-68	Weaver	1405	MO	
valerii	Costa Rica	Heredia	1.5 mi N of Vara Blanca on rd to San Miguel		7-Aug-68	Weaver	1405	US	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	DAV	[2 sheets]
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	DUKE	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	F	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	GH	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	MICH	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	MO	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	S	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	TEX	[2 sheets]
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	U	
valerii	Costa Rica	San José	Cerro de la Muerte, 16 mi N of San Isidro General	1830	15-Jul-62	Webster et al.	12329	US	
valerii	Costa Rica	San José	San Pedro de Montes de Oca	1200	22-Nov-66	Weston et al.	3424	UC	
valerii	Costa Rica	San José	12 km NNE of San Vicente de Moravia	1200	4-May-71	Wilbur	14081	DUKE	

valerii	Costa Rica	San José	12 km NNE of San Vicente de Moravia	1200	4-May-71	Wilbur	14081	F	[2 sheets]
valerii	Costa Rica	San José	12 km NNE of San Vicente de Moravia	1200	4-May-71	Wilbur	14081	MO	[2 sheets]
valerii	Costa Rica	San José	12 km NNE of San Vicente de Moravia	1200	19-May-71	Wilbur	14680	DUKE	
valerii	Costa Rica	San José	Pueblo Nuevo near Quebrado Aristides	1860	28-Dec-74	Wilbur	18961	DUKE	[2 sheets]
valerii	Costa Rica	Cartago	18 km N of El Empalme		4-Jul-76	Wilbur	19850	DUKE	
valerii	Costa Rica	Cartago	18 km N of El Empalme		4-Jul-76	Wilbur	19850	F	
valerii	Costa Rica	San José	Alto La Palma, 15 km NE of San José		13-Jul-76	Wilbur	20350	DUKE	[3 sheets]
valerii	Costa Rica	San José	Alto La Palma, 15 km NE of San José		13-Jul-76	Wilbur	20350	F	
valerii	Costa Rica	San José	Alto La Palma, 15 km NE of San José		13-Jul-76	Wilbur	20350	MICH	
valerii	Costa Rica	San José	Alto La Palma, 15 km NE of San José		13-Jul-76	Wilbur	20350	MO	
valerii	Costa Rica	San José	Alto La Palma, 15 km NE of San José		13-Jul-76	Wilbur	20350	NY	
valerii	Costa Rica	San José	20 km N of San Isidro del General	2000	24-Jul-76	Wilbur	21132	DUKE	
valerii	Costa Rica	San José	20 km N of San Isidro del General	2000	24-Jul-76	Wilbur	21132	MICH	
valerii	Costa Rica	San José	12 km N of San Isidro del General		24-Jul-76	Wilbur	21178	CAS	
valerii	Costa Rica	San José	12 km N of San Isidro del General		24-Jul-76	Wilbur	21178	DUKE	
valerii	Costa Rica	San José	12 km N of San Isidro del General		24-Jul-76	Wilbur	21178	MICH	
valerii	Costa Rica	San José	12 km N of San Isidro del General		24-Jul-76	Wilbur	21178	MO	
valerii	Costa Rica	Cartago	Tapantí, bridge at Río Grande de Orosi		31-Jul-76	Wilbur	21624	DUKE	[2 sheets]
valerii	Costa Rica	Cartago	Tapantí, bridge at Río Grande de Orosi		31-Jul-76	Wilbur	21624	F	
valerii	Costa Rica	Cartago	Tapantí, bridge at Río Grande de Orosi		31-Jul-76	Wilbur	21624	MO	
valerii	Costa Rica	San José	3-5 km NE of Cascajal, vic. Río Cascajal	1750	17-Feb-78	Wilbur	24441	DUKE	
valerii	Costa Rica	Cartago	8 km NE of Santa Cruz towards Bonilla Arriba	1400	9-Mar-78	Wilbur	25554	DUKE	
valerii	Costa Rica	San José	2.5 km N of La Sierra	1900	23-Jul-80	Wilbur	29576	DUKE	
valerii	Costa Rica	Cartago	5 km upstream from the Tapantí bridge up the Río Grande de Orosi	1250	10-Aug-80	Wilbur	30791	DUKE	
valerii	Costa Rica	Cartago	1 km N of the bridge over the Río Grande de Orosi	1500	11-Aug-80	Wilbur	30880	DUKE	
valerii	Costa Rica	San José	14 km N of San Isidro del General		17-Aug-80	Wilbur	31264	DUKE	[2 sheets]
valerii	Costa Rica	Cartago	Along the Río Grande de Orosi about 6 km SE of the Tapantí bridge	1300	9-Aug-81	Wilbur	32984	DUKE	
valerii	Costa Rica	San José	Alto La Palma about 7.5 mi N of San Vicente	1480	20-May-72	Wilbur & Almeda	16689	DUKE	[2 sheets]
valerii	Costa Rica	San José	Alto La Palma about 7.5 mi N of San Vicente	1480	20-May-72	Wilbur & Almeda	16689	F	
valerii	Costa Rica	San José	Alto La Palma about 7.5 mi N of San Vicente	1480	20-May-72	Wilbur & Almeda	16689	NY	
valerii	Costa Rica	San José	Alto La Palma to Bajo La Hondura	1500	14-Dec-74	Wilbur & Luteyn	18143	DUKE	

valerii	Costa Rica	Cartago	Vic. Palo Verde and the Quebrada Cangreja on the road to Estrella	1600	19-Dec-74	Wilbur & Luteyn	18432	DUKE	
valerii	Costa Rica	Cartago	1.5 km S of Muñeco along the Río Sombrero	1300	26-Dec-74	Wilbur & Luteyn	18843	DUKE	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	CAS	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	DUKE	[2 sheets]
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	F	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	GH	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	MICH	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	MO	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	NY	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	TEX	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-69	Wilbur & Stone	10472	UC	
valerii	Costa Rica	Alajuela	4.5 mi N of Varablanca on rd towards Puerto Viejo		26-Aug-68	Wilbur & Stone	10472	US/	not on loan
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	DUKE	[2 sheets]
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	F	[2 sheets]
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	GH	
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	MICH	
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	MO	
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	NY	
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1402	27-Aug-68	Wilbur & Stone	10483	TEX	
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	UC	
valerii	Costa Rica	Cartago	Bridge at Tapantí above the Río Grande	1403	27-Aug-68	Wilbur & Stone	10483	US	
valerii	Costa Rica	Alajuela	19 km N of San Ramón	1037	3-Sep-68	Wilbur & Stone	10684	DUKE	[2 sheets]
valerii	Costa Rica	Alajuela	19 km N of San Ramón	1037	3-Sep-68	Wilbur & Stone	10684	F	
valerii	Costa Rica	Alajuela	19 km N of San Ramón	1037	3-Sep-68	Wilbur & Stone	10684	GH	
valerii	Costa Rica	Alajuela	19 km N of San Ramón	1037	3-Sep-68	Wilbur & Stone	10684	MICH	
valerii	Costa Rica	Alajuela	19 km N of San Ramón	1037	3-Sep-68	Wilbur & Stone	10684	MO	
valerii	Costa Rica	Alajuela	19 km N of San Ramón	1037	3-Sep-68	Wilbur & Stone	10684	US/	not on loan
valerii	Costa Rica	Cartago	14 km S from the Tejar intersection of the San José-Cartago hwy		2-Jul-77	Wilbur et al.	21832	DUKE	
valerii	Costa Rica	San José	17 km NE of San Isidro del Coronado, vic. Río Cascajal	1700	5-Jul-77	Wilbur et al.	22012	DUKE	
valerii	Costa Rica	Cartago	S of Muñeco between the Río Sombrero and the Río Patarrá	1300-1500	7-Jul-77	Wilbur et al.	22222	DUKE	[2 sheets]
valerii	Costa Rica	Cartago	3 km from bridge at Tapantí	1250	9-Jul-77	Wilbur et al.	22322	DUKE	
valerii	Costa Rica	Cartago	3 km from bridge at Tapantí	1250	9-Jul-77	Wilbur et al.	22322	MICH	

valerii	Costa Rica	San José	Alto La Palma about 16 km NE of Guadalupe	1500	11-Jul-77	Wilbur et al.	22525	DUKE	
valerii	Costa Rica	Alajuela	0.7 km above La Paz waterfall, or 11 km S of Cariblanco	1400	22-Jul-77	Wilbur et al.	23075	DUKE	
valerii	Costa Rica	San José	21.6 km NE of San Isidro del General	2000	1-Aug-77	Wilbur et al.	23738	DUKE	
valerii	Costa Rica	San José	P.N. Braulio Carrillo, Sendero Río Cascajal	1250	30-Jun-84	Zamora et al.	644	F	
valerii	Costa Rica	San José	P.N. Braulio Carrillo, Sendero Río Cascajal	1250	30-Jun-84	Zamora et al.	644	MO	
valerii	Costa Rica	San José	P.N. Braulio Carrillo, Sendero Río Cascajal	1250	30-Jun-84	Zamora et al.	644	TEX	
valerii	Costa Rica	San José	P.N. Braulio Carrillo, Sendero Río Cascajal	1250	30-Jun-84	Zamora et al.	644	U	
viscosa	Peru	Pasco	Oxapampa, Huancabamba, Misericordia trail, Lanturachi-Sta. Barbara	2300-3300	3-Jul-85	Foster, R. et al.	10511	USM	
viscosa	Peru	Huánuco	10 km N of Acomayo	3355	10-Oct-82	Graham	s.n.	F	
viscosa	Peru	Huánuco				Ruíz & Pavón	s.n.	MA-RUIZP AVON	isolect
viscosa	Peru	Huánuco				Ruíz & Pavón	s.n.	MA-RUIZP AVON	lectotype
viscosa	Peru	Huánuco	Prov. Pachitea, Panao, road from Chaglla to Rumichaca (Tambo de Vaca)	3440	31-Mar-01	Weigend et al.	5429	BSB	
viscosa	Peru	Huánuco	Prov. Pachitea, Panao, road from Chaglla to Rumichaca (Tambo de Vaca)	3440	31-Mar-01	Weigend et al.	5429	NY	NOT YET SENT
wallnoeferi	Peru	Huánuco	southwestern slope of the Río LlullaPichichis watershed, ascent of Cerros del Sira, in open rain forest above camp 2 (Patricio)	1000	7-Jul-69	Dudley	12269 A	NA	[NA at WU] [2 sheets]
wallnoeferi	Peru	Pasco	Oxapampa, W side of Cordillera de San Matias between Iscosacin and summit, 75 12 W, 10 11 S	910	22-Jun-82	Smith, D.N.	2050	HAM	
wallnoeferi	Peru	Pasco	Oxapampa, W side of Cordillera de San Matias between Iscosacin and summit, 75 12 W, 10 11 S	910	22-Jun-82	Smith, D.N.	2050	MO3	
wallnoeferi	Peru	Pasco	Oxapampa, W side of Cordillera de San Matias between Iscosacin and summit, 75 12 W, 10 11 S	910	22-Jun-82	Smith, D.N.	2050	USM	not on loan
wallnoeferi	Peru	Junín	Satipo, Gran Pajonal, between Paucarete and Tihuanaski	1200	29-Mar-84	Smith, D.N.	6550	NEU	
wallnoeferi	Peru	Junín	Satipo, Gran Pajonal, between Paucarete and Tihuanaski	1200	29-Mar-84	Smith, D.N.	6550	U	
wallnoeferi	Peru	Huánuco	Pachitea, Pucallpa, 24-26 km SE of Puerto Inca	1080	12-Apr-88	Wallnöfer	110- 12488	U	
wallnoeferi	Peru	Huánuco	Pachitea, Pucallpa, 24-26 km SE of Puerto Inca	1080	12-Apr-88	Wallnöfer	110- 12488	WU	
wallnoeferi	Peru	Huánuco	Pachitea, Pucallpa, 20-24 km SE of Puerto Inca	1050-1080	20-Mar-88	Wallnöfer	18- 20388	U	iso
wallnoeferi	Peru	Huánuco	Pachitea, Pucallpa, 20-24 km SE of Puerto Inca	1050-1080	20-Mar-88	Wallnöfer	18- 20388	WU	holo

wallnoeferi	Peru	Huánuco	Río LullaPichichis Watershed, ascent of Cerros del Sira	1000	7-Jul-69	Wolfe	12269 A	F	[2 sheets]
weaveri	Venezuela	Táchira	Páramo de Taimà	2500-3000	12-Nov-76	Charpin & Jacquemoud	13226	U	
weaveri	Venezuela	Táchira	Hoya del Río Táchira	2800-3000	16-Jan-73	Cuatrecasas et al.	28346	US	[2 sheets]
weaveri	Venezuela	Táchira	Entre Páramo de Tama y Betania	2800-3000	18-Mar-73	Fernández	2103	MY	
weaveri	Venezuela	Táchira	Entre Betani (Valle del Tamá) hacia San Vicente de la Revancha	2750	5-Jan-83	López-Figueiras	29854	US	
weaveri	Colombia	N de Santander	Mun. de Herrán, P.N. Natural Tamá	2650-3020	2-Apr-87	Lozano C. et al.	5559	MA	
weaveri	Venezuela	Táchira	Páramo de Tamá	2500-3200	29-Jan-78	Luteyn et al.	5349	GH	
weaveri	Venezuela	Táchira	Páramo de Tamá	2500-3200	29-Jan-78	Luteyn et al.	5349	NY	
weaveri	Venezuela	Táchira	Páramo de Tamá	2500-3200	29-Jan-78	Luteyn et al.	5349	VEN	
weaveri	Colombia	N de Santander	Toledo, Páramo de Santa Isabél	2300	4-Nov-94	Orozco et al.	3000	COL	[2 sheets]
weaveri	Venezuela	Mérida	Páramo del Cupis	3000	23-Mar-67	Ruíz et al.	3892	VEN	
weaveri	Venezuela	Táchira	Páramo de Tamá	2500-2895	15-Jul-44	Steyermark	57317	F	
weaveri	Venezuela	Táchira	Páramo de Tamá	2750-2950	20-May-67	Steyermark & Dunsterville	80684	VEN	
weaveri	Venezuela	Táchira	Páramo de Tamá	2750-2950	20-May-67	Steyermark & Dunsterville	98555	NY	
weaveri	Venezuela	Táchira	Páramo de Tamá	2750-2950	20-May-67	Steyermark & Dunsterville	98555	US	
weaveri	Venezuela	Táchira	Páramo de Tamá	2800-3100	27-Sep-72	Weaver	2613	BM	iso
weaveri	Venezuela	Táchira	Páramo de Tamá	2800-3100	27-Sep-72	Weaver	2613	G	iso
weaveri	Venezuela	Táchira	Páramo de Tamá	2800-3100	27-Sep-72	Weaver	2613	GH	holo
weaveri	Venezuela	Táchira	Páramo de Tamá	2800-3100	27-Sep-72	Weaver	2613	WIS	iso
weigendiorum	Peru	Huánuco	Prov. Leoncio Prado, Cumbre "La divisoria", carretera entre Tingo María y Pucallpa	170	18-Jan-87	Díaz, C. & Baldéon	2271	HAM	
weigendiorum	Peru	Huánuco	Prov. Leoncio Prado, Cumbre "La divisoria", carretera entre Tingo María y Pucallpa	170	18-Jan-87	Díaz, C. & Baldéon	2271	NEU	
weigendiorum	Peru	Huánuco	Prov. Leoncio Prado, Cumbre "La divisoria", carretera entre Tingo María y Pucallpa	170	18-Jan-87	Díaz, C. & Baldéon	2271	U	
weigendiorum	Peru	Huánuco	Prov. Leoncio Prado, Cumbre "La divisoria", carretera entre Tingo María y Pucallpa	170	18-Jan-87	Díaz, C. & Baldéon	2271	USM	
weigendiorum	Peru	Ucayali	Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria	930	26-Mar-01	Weigend et al.	5363	BSB	holo
weigendiorum	Peru	Ucayali	Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria	930	26-Mar-01	Weigend et al.	5363	F	iso
weigendiorum	Peru	Ucayali	Aquavtia. road from Aquavtia to Tingo Maria, km 33. Abra	930	26-Mar-01	Weigend et al.	5363	GH	iso

			Divisoria						
weigendiorum	Peru	Ucayali	Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria	930	26-Mar-01	Weigend et al.	5363	HUT2	[2 sheets]
weigendiorum	Peru	Ucayali	Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria	930	26-Mar-01	Weigend et al.	5363	NY	iso [2 sheets]
weigendiorum	Peru	Ucayali	Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria	930	26-Mar-01	Weigend et al.	5363	U	iso
weigendiorum	Peru	Ucayali	Aguaytia, road from Aguaytia to Tingo Maria, km 33, Abra Divisoria	930	26-Mar-01	Weigend et al.	5363	US	iso
wurdackii	Peru	San Martín	Rioja, Pedro Ruíz-Moyobamba road, km 368, Campamento García	2200	14-Aug-83	Smith, D.N.	4793	NEU	
wurdackii	Peru	San Martín	Rioja, Pedro Ruíz-Moyobamba road, km 368, Campamento García	2200	14-Aug-83	Smith, D.N.	4793	U	
wurdackii	Peru	San Martín	Rioja, Pedro Ruíz-Moyobamba road, km 368, Campamento García	2200	14-Aug-83	Smith, D.N.	4793	USM	
wurdackii	Peru	San Martín	Rioja, km 385 Moyobamba-Bagua road	1850	17-Feb-84	Smith, D.N.	5996	USM	
wurdackii	Peru	Amazonas	Bongara, jalca zone along Yambrasbamba-Pomacocha trail between Yanayacu and Pomacocha	2300-2400	26-Jun-62	Wurdack	1071	NY	iso
wurdackii	Peru	Amazonas	Bongara, jalca zone along Yambrasbamba-Pomacocha trail between Yanayacu and Pomacocha	2300-2400	26-Jun-62	Wurdack	1071	US	holo
wurdackii	Peru	Amazonas	Bongara, jalca zone along Yambrasbamba-Pomacocha trail between Yanayacu and Pomacocha	2300-2400	26-Jun-62	Wurdack	1071	USM	iso
xerantifulva	Peru	Cajamarca	San Ignacio, La Coipa, vista Florida-La Laguna	2000-2100	11-Jun-97	Campos & García	3960	MO3	
xerantifulva	Peru	Cajamarca	San Ignacio, La Coipa, vista Florida-La Laguna	2000-2100	11-Jun-97	Campos & García	3960	U2	[2 sheets]
xerantifulva	Peru	Cajamarca	Jaén, Colosay, above the village	1800-2300	7-Mar-98	Dostert	98/114	MSB	
xerantifulva	Peru	Piura	Huancabamba, Cordillera de San José	1700	23-Sep-61	Friedberg	696	NY	
xerantifulva	Peru	—	—	—	9-Jan-09	Matthews	2097	E	
xerantifulva	Peru	—	Casapi	—	—	Matthews	2097	K	
xerantifulva	Peru	—	—	—	—	Matthews	2097	OXF	
xerantifulva	Peru	Cajamarca	Cutervo, San Andrés, km 1.5 noriente de San Andrés	2250	18-Jun-80	Sánchez Vega	7380	MO3	
ypsiloaule	Ecuador	Carchi	Cerro Golondrinas, crest of N ridge	3000-3060	24-Jul-94	Boyle et al.	3394	MO3	
ypsiloaule	Colombia	Putumayo	Páramo de San Francisco (La Depresion), en el camino carretero de San Francisco a Mocoa	3000-3100	1-Jan-42	Fray Miguel	57	F	holo
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	F	iso
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	GH	iso
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	K	iso [2 sheets]
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	NY	iso [2 sheets]

zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	P	iso
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	S	iso
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	UC	iso
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	US	holo [2 sheets]
zophoflora	Peru	Amazonas	Chachapoyas, Molinipampa-Diosan Pass	2700-3100	8-Aug-62	Wurdack	1618	USM	iso
x acuminata	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Jiménez, A.	2023	BM	iso
x acuminata	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Jiménez, A.	2023	F	holo
x acuminata	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Jiménez, A.	2023	GH	iso
x acuminata	Costa Rica	Cartago	Tapantí	1250	7-Jul-64	Jiménez, A.	2023	NY	iso
x mattii	Ecuador	Loja	Beside the road from Yangana to 'Cerro Toledo'	2500	1-Jan-98	Matt	14	ER	
x mattii	Ecuador	Loja	Beside the road from Yangana to 'Cerro Toledo'	2500	1-Jan-98	Matt	15	ER	