

MISCELLANEOUS NEW TAXA OF BROMELIACEAE (VI)

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ABSTRACT. Two new species of Bromeliaceae are described: *Tillandsia dexteri* from Costa Rica and *Guzmania madisonii* from Ecuador. Four new varieties of *Guzmania* are also described: *G. morreniana* var. *tenuifolia* from Peru, *G. sanguinea* var. *comosa* from Colombia and two varieties of *G. musaica* from Panama, *G. musaica* var. *discolor* and *G. musaica* var. *rosea*. In addition, the status of *Tillandsia* × *rectifolia* is changed from that of a species to a natural hybrid and its reported range is extended to Costa Rica. New Taxa of Bromeliaceae (V) appeared in *Selbyana* 10: 56-59 (1987).

COLOMBIA

1. *Guzmania sanguinea* (Andre) Andre ex Mez
var. *comosa* Luther, var. nov. FIGURE 1.

A typo *G. sanguinea* (Andre) Andre ex Mez
sed bracteis florigeris grandis et apex inflores-
centia elongatus sterilisque differt.

TYPE. Colombia; without specific locality,
flowered in cultivation, 12 October 1980, H. E.
Luther 407 (SEL, holotype).

Rosulate epiphyte. Leaves to 40 cm long, the
innermost bright red at anthesis. Scape very short.
Inflorescence simple. Floral bracts to 4 cm long,
red to orange. Pedicels slender, to 1.8 cm long.
Sepals to 2.2 cm long, pale yellow. Corolla to 6
cm long, bright yellow tipped white. Main axis
of the inflorescence elongated above the flowers
with a sterile tuft of floral bracts at the apex.

PARATYPE. Colombia; Dept. Valle, Agua Clara
along highway from Buenaventura to Cali, 100
m, 6 June 1944, E. P. Killip & J. Cuatrecasas
38871 (US).

This spectacular variety has been in limited
cultivation since the early 1960's and has been
misidentified first as *Guzmania eduardii* Andre
ex Mez and later as *G. sanguinea* var. *erecta*
Andre. The latter is very doubtfully a variety of
G. sanguinea and may be conspecific with *G.*
fusispica Mez & Sodiro; regardless, the type and
the only illustration are so poor that a positive
identification is impossible.

COSTA RICA

2. *Tillandsia dexteri* Luther, sp. nov. FIGURE 2.

A *T. alvarezii* Rauh affinis sed vaginis foliis
inflatus, scapis brevissimus differt.

TYPE. Costa Rica; Prov. Limon, vic. of Limon
on pasture trees. Collected in 1978, flowered in
cultivation 24 February 1988, M. Dexter s.n. (SEL,
holotype).

Plant stemless, growing in hemispherical, often
pendent clusters. Leaves 25-40 cm long, pale
punctate lepidote throughout. Leaf sheaths 2 cm
long, 1.6 cm wide, ovate, conspicuously inflated,
dark castaneous, margined with fimbriate tri-
chomes. Leaf blades involute, setaceous, 1-2 mm
wide, pale green often with small reddish spots.
Scape very short, barely exceeding the leaf
sheaths. Scape bracts few, the lower foliaceous,
the upper much reduced. Inflorescence usually
simple, rarely digitate with 1-3 branches, disti-
chously 3- to 9-flowered. Rhachis geniculate.
Floral bracts scarcely imbricate and not con-
cealing the rhachis at anthesis, 10-11 mm long,
elliptic, acute, nerved and somewhat carinate to-
ward the apex, equalling to exceeding the sepals,
yellow-green or tinged red. Sepals elliptic, 8-10
mm long, nerved, the posterior sepals free to very
short connate and carinate. Petals erect to
spreading, to 15 mm long, cream. Stamens and
style included. Capsules to 35 mm long.

FIGURE 1. Type specimen of *Guzmania sanguinea* var. *comosa* Luther (SEL).

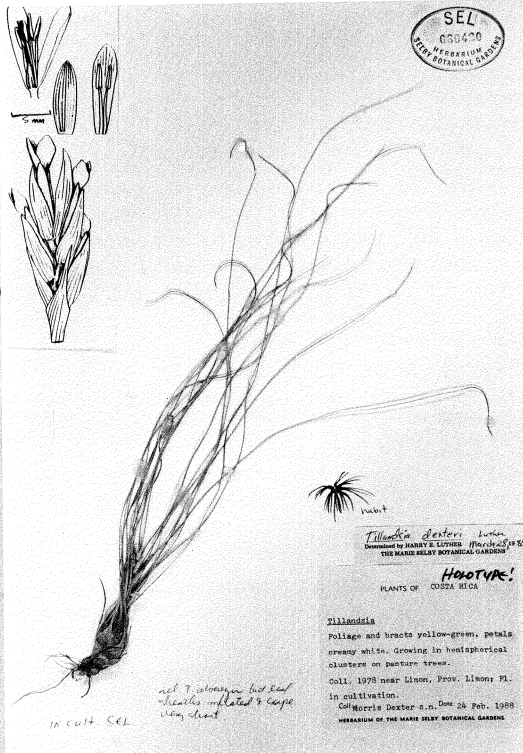
FIGURE 2. Type specimen of *Tillandsia dexteri* Luther (SEL).

FIGURE 3. Type specimen of *Guzmania madisonii* Luther (SEL).

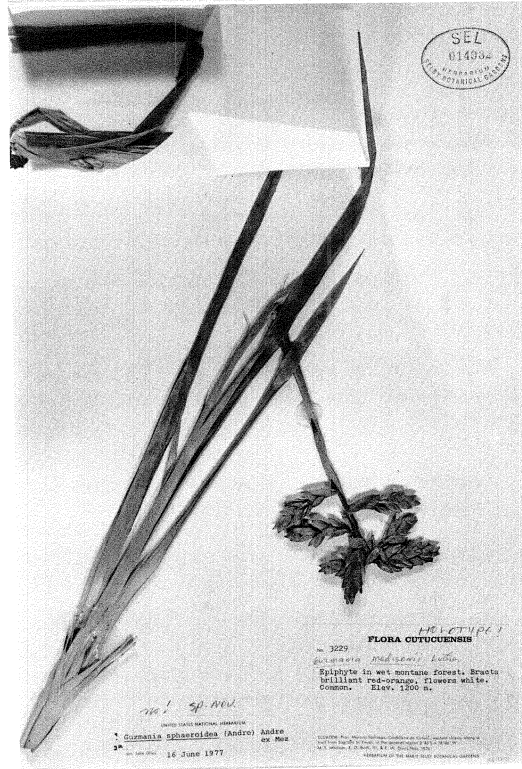
FIGURE 4. Type specimen of *Guzmania morreniana* var. *tenuifolia* Luther (SEL).



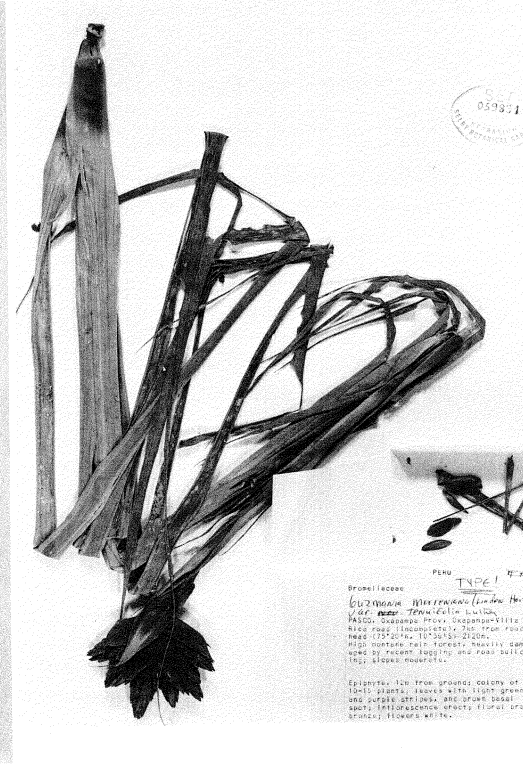
HOLOTYPE!
 PLANTS OF COLOMBIA?
Tillandsia usneoides (Vahl) André ex Mez
 var. *flavida* L. W. C. H.
 Petioles green, the lower leaves dk. red.
 Floral bracts dk. orange red, conspicuous.
 Corolla yellow tipped white. Sterile cone
 dk. orange.
 Pl. in cult. B. Easthart, Bradenton, Fla.
 C.H. Luther 407 Don. Oct. 12 1980
 HERBARIUM OF THE MARIE SELBY BOTANICAL GARDENS



HOLOTYPE!
 PLANTS OF COSTA RICA
Tillandsia flexuosa L. W. C. H.
 Described by HARRY E. LUTHER (March 22, 1981)
 THE MARIE SELBY BOTANICAL GARDENS
 Coll. 1978 near Limón, Prov. Limón Pl.
 in cultivation.
 C.H. Luther 407 Don. 28 Feb. 1988
 HERBARIUM OF THE MARIE SELBY BOTANICAL GARDENS



HOLOTYPE!
 FLORA CUCUCUENSIS
 = 3229
Tillandsia usneoides L. W. C. H.
 Epiphyte in wet montane forest. Bracts
 brilliant red-orange. Flowers white.
 Common. Elev. 1200 m.
 16 June 1977



HOLOTYPE!
 PLANT
 Bromeliaceae
Tillandsia usneoides (L. W. C. H.) Mez
 var. *flavida* L. W. C. H.
 PASC. Guapondé Prov. Guapondéville.
 Road near Guapondéville. 700' from road.
 Road 125° 30' W. 10 30' S - 21 km.
 High montane rain forest. Recently
 impacted by recent logging and road
 building. Slope moderate.
 Epiphyte. 12' from ground; colony of
 10-15 plants. Bracts with light green
 and purple str. lines. Bract bases
 spots. Inflorescence orange. Floral
 bracts; flowers white.

PARATYPES. Costa Rica, Prov. Alajuela, San Carlos, 800 m, 28 July 1988, *C. Skotak s.n.* (SEL); La Marina, ca. 300 m, November 1988, *Skotak & Hall s.n.* (SEL).

This new species superficially resembles the unrelated *Tillandsia butzii* Mez due to its pseudobulbous habit with long, involute leaf blades. It can be distinguished by its nearly sessile inflorescence and cream flowers with included stamens and style. From the related *T. alvarezii* Rauh from S.E. Mexico this species differs by its inflated leaf sheaths and very short scape. Both *T. dexteri* and *T. alvarezii* appear to have some relationship with *T. remota* Wittm., *T. disticha* H.B.K. and *T. filifolia* Schlechtend. & Cham. This assemblage more or less corresponds to Gardner's Group IV (Gardner, 1986).

ECUADOR

3. *Guzmania madisonii* Luther, sp. nov.

FIGURE 3.

A. G. sphaeroidea (Andre) Andre ex Mez similis sed foliis laminis perangustus, sepalis et petalis brevissimus differt.

TYPE. Ecuador, Prov. Morona-Santiago, Cordillera de Cutucú, western slopes along trail from Logroño to Yaupi, 2°46'S, 78°06'W, 1,200 m, November 1976, *M. T. Madison, E. O. Bush & E. W. Davis 3229* (SEL, holotype).

Plant epiphytic, flowering to at least 45 cm tall. Leaves spreading, to 45 cm long, inconspicuously appressed lepidote throughout. Leaf sheaths elliptic, to 5 cm long, 18 mm wide, castaneous at the base. Leaf blades ligulate, acute to attenuate, to 40 cm long, 12 mm wide. Scape erect, 2 mm thick. Scape bracts strict, imbricate, the lower foliaceous, the upper lanceolate, acute. Inflorescence bipinnate with 7–10 branches. Primary bracts lanceolate to ovate, acuminate, much shorter than the stipitate branches. Stipes to 6 mm long. Branches spreading, 4 cm long, 1.5 cm wide, densely 8- to 10-flowered. Floral bracts broadly elliptic to ovate, 7–11 mm long, even, lustrous, brilliant red-orange (! Madison). Pedicels obconic, ca. 2 mm long. Sepals obovate, 10–11 mm long, connate 2 mm, the posterior pair carinate. Petals ca. 1.6 cm long, white (! Madison).

PARATYPE. Ecuador, Prov. Zamora-Chinchipec, Cordillera del Condor, along road Guiseme-Condor, 1,800 m, 19 January 1989, *Dalstrom & Hoijer 1170* (SEL).

This new species from eastern Ecuador resembles the widely distributed *Guzmania sphaeroi-*

dea (Andre) Andre ex Mez but can be distinguished by its narrower leaf blades, brilliantly colored inflorescence and smaller flowers.

MEXICO

4. *Tillandsia* × *rectifolia* Wiley, stat. nov.

Tillandsia rectifolia Wiley, Trop. und Subtrop. Pflanz. 31: 7–9, figure 2. 1979. TYPE: Central Mexico, without specific locality, *leg. F. Kubish, ex hort.* (HEID, holotype; *n.v.*).

Natural hybrid: *Tillandsia ionantha* Planchon × *Tillandsia schiedeana* Steudel.

SPECIMENS EXAMINED. Mexico; without locality, flowered in cultivation at SEL, July 1988, *H. E. Luther s.n.* (SEL). Costa Rica; Prov. Alajuela, 1,000 m, 1987, *D. Cathcart & W. Berg s.n.* (SEL).

A number of natural hybrids have been reported in *Tillandsia* (Gardner, 1984; Read, 1984; Luther, 1985) and several additional taxa first described as species probably represent hybrids. These hybrids are usually uncommon within a population of the parental species but are often commonly met with in cultivation as sharp-eyed collectors frequently select them because they look different and usually have horticultural appeal. *Tillandsia* × *rectifolia* is to be expected wherever *T. ionantha* and *T. schiedeana* occur as sympatric populations.

PANAMA

5. *Guzmania musaica* (Linden & Andre) Mez var. *discolor* Luther, var. nov.

A. G. musaica var. *concolor* L. B. Sm. similis sed foliis laminis abaxialis purpuratus differt.

TYPE. Panama; Prov. Panama, Cerro Azul, 2,300 ft, August 1985, *J. Halton s.n.* (SEL, holotype).

Rhizomatous epiphyte. Leaves spreading, adaxially dark green, abaxially purple. Inflorescence erect. Bracts red. Calyx yellow orange.

6. *Guzmania musaica* (Linden & Andre) Mez var. *rosea* Luther, var. nov.

A typo *G. musaica* similis sed bracteis roseus et sepalis petalisque albis differt.

TYPE. Panama; Prov. Chiriqui, above Fortuna Dam, wet montane forest, 1,100 m, June 1986 *Luther, Besse, Halton & Kress 1094* (SEL, holotype; MO, PMA, US, isotypes).

Rhizomatous epiphyte. Leaves spreading, green with reddish bands. Inflorescence erect. Bracts rose. Calyx white. Corolla white.

It is interesting to note that in the Fortuna region this variety is restricted to the densely forested Pacific slopes above the dam. Less than 20 km distant, on the Caribbean slopes in very similar forests at equivalent elevation, all plants of *Guzmania musaica* represent the typical variety with orange or red bracts and yellow calyx and corolla. These color morphs represent discreet populations and they are not occasional color forms within a population.

PERU

7. *Guzmania morreniana* (Hort. Linden) Mez var. *tenuifolia* Luther, var. nov. FIGURE 4.

A typo *G. morreniana* similis sed foliis laminis et bracteis scapis perangustioribus tenuisque differt.

TYPE. Peru; Dept. Pasco, Prov. Oxapampa, Oxapampa-Villa Rica road, 7 km from roadhead (75°20'W, 10°36'S), 2,120 m, 4 January 1984, *D. N. Smith & J. Alban 5562* (SEL, holotype; MO, isotype).

Clustering epiphyte. Leaves spreading, light green with purple stripes, pale appressed lepidote, especially abaxially. Leaf sheaths elliptic, castaneous abaxially, pale adaxially. Leaf blades

to 95 cm long, 10–18 mm wide, long attenuate. Scape bracts similar to the leaves but smaller, 12–50 cm long, 4–8 mm wide, attenuate. Inflorescence densely digitate with 6 spikes. Primary bracts ovate, acuminate, dark castaneous. Spikes to 6 cm long, each ca. 12-flowered. Floral bracts to 2 cm long, acute to rounded, exceeding the sepals, dark castaneous. Sepals to 16 mm long, connate 1–3 mm, the posterior pair carinate. Petals white.

The structure and the size of the inflorescence in this variety agree with *Guzmania morreniana*, a species of wide but sporadic distribution in Ecuador and Peru. The very narrow leaf blades, however, are quite different and additional collections of this variety may show that it deserves specific rank.

LITERATURE CITED

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