

# **Revision of Monstera of Central America**

**Thomas B. Croat  
P. A. Schulze Curator  
Missouri Botanical Garden**



MISSOURI BOTANICAL GARDEN

# Key to sections of Monstera

Juvenile plants with leaves long-petiolate and spreading.

- Pistils 10-18 mm diam. in fruit; seeds 16-22 cm diam. sect. **Tornelia**
  - Pistils 5-8 mm diam.; seeds 5-13 mm diam. sect. **Monstera**

Juvenile plants with shingle leaves, tightly appressed to tree and with short petioles.

- Flowering spadix erect. sect. **Monstera**
  - Flowering spadix pendent, adult leaf with ligule about as long as petiole. sect. **Echinospadix**

# Monstera last revised by Madison (1977)

## 22 species, 3 varieties

### 4 sections

- Sect. Tornelia 1 sp.
- Sect. Monstera 13 spp.
- Sect. Marcgraviopsis 7 spp.
- Sect. Echinospadix 1 sp.

All except 2 of Madison's species were native to Central America.

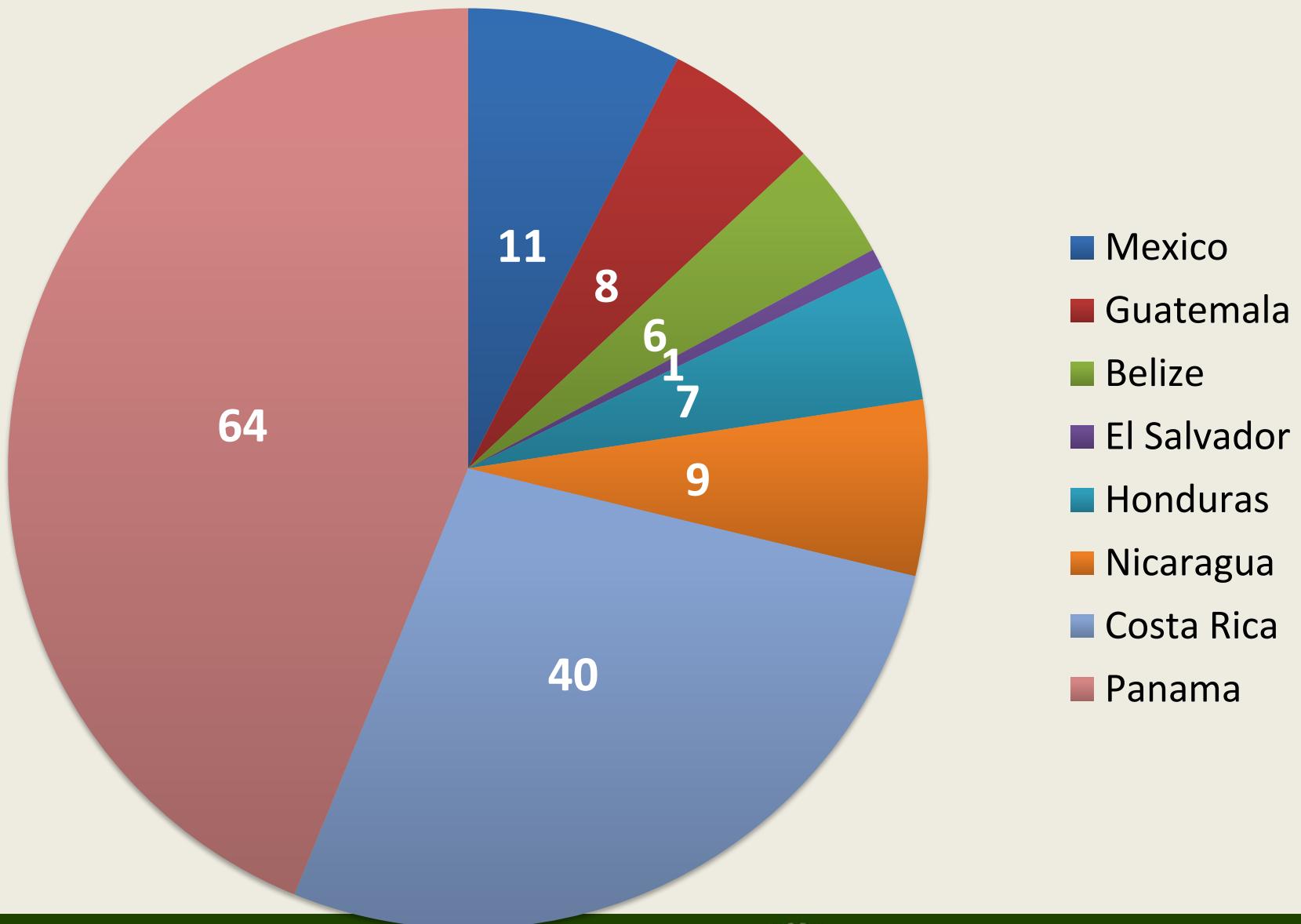
One additional species, *M. lechleriana* is endemic to South America but reported for Central America based on misdetermined material.

Presently there are 94 species

- Sect. Monstera 28 spp.
- Sect. Marcgraviopsis 12 spp.
- Sect. Tornelia 1 sp.
- Sect. Echinospadix 1 sp.
- Unknown sections 52 spp.



# Number of Species per Country



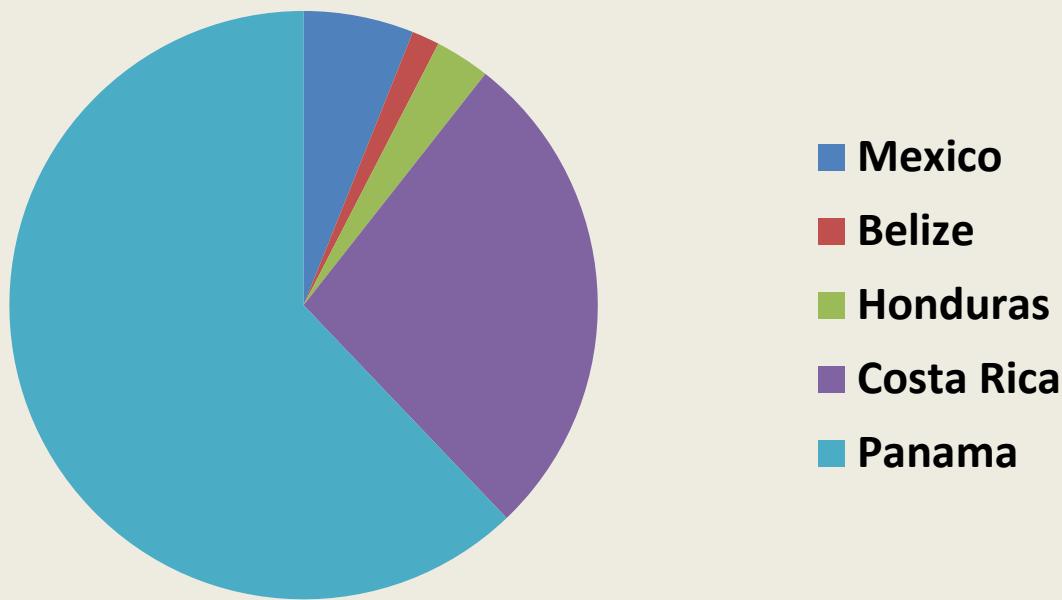
MISSOURI BOTANICAL GARDEN

## All Monstera Species in Central America 92

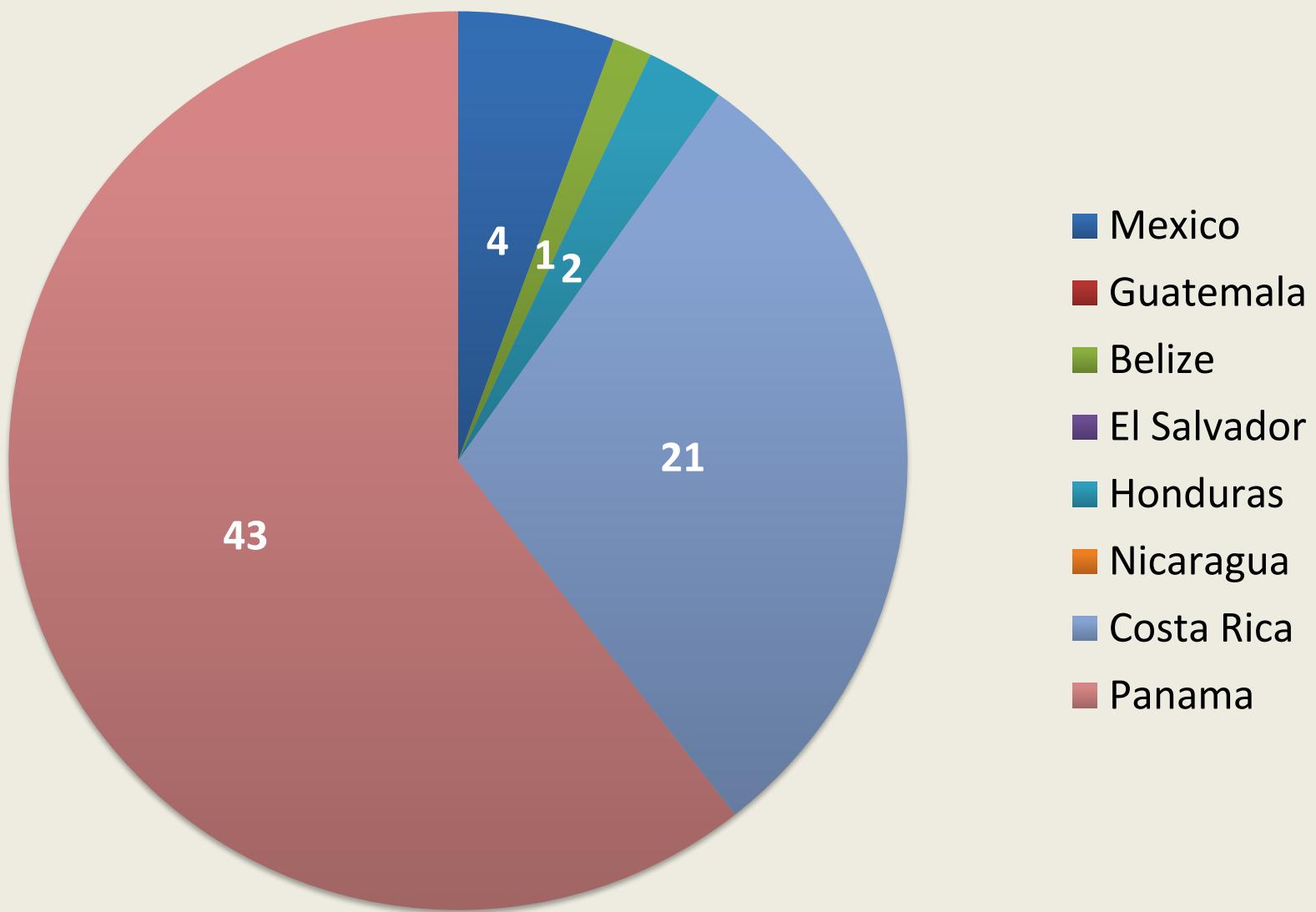
- Mexico 11
- Guatemala 8
- Belize 6
- El Salvador 1
- Honduras 7
- Nicaragua 9
- Costa Rica 40
- Panama 64

Middle America 47 (All of Central America  
except Mexico and Panama)

# Number of Endemic Species per country



# Endemic Species in Central America



MISSOURI BOTANICAL GARDEN

# Characteristics of Monstera

- Internodes coarse and tough with roots mostly on one side of stem
- Roots dense, capable of growing into cracks
- Petioles typically almost fully sheathed
- Sheath persisting or deciduous
- Juvenile growth scototropic
- Juvenile leaves diverse in shape and form
- Leaf blades highly diverse
  - Entire
  - Pinnately lobed
  - Perforated
  - Perforated becoming pinnate
- Major veins sunken and concolorous above, narrowly rounded and paler below
- Reticulate venation reticulate
- Inflorescence 1-several per axil
- Peduncle variation
- Spathe thick and caducous
- Pollination by beetles at night
- Spadix cylindroid
- Flowers hermaphroditic
- Stigmas circular or oblong, berries with large seeds



Pinnately lobed



Perforate in several series



Leaf blade diversity



Entire blades

Partly perforate  
with ripping out

## Spath spadix proportions



*M. egregia*



*M. tarzuensis*



*M. deliciosa*



*Monstera sp. nov. Boquete*



*M. acuminata*



MISSOURI BOTANICAL GARDEN

## Fruit type and dehiscence



M. anomala

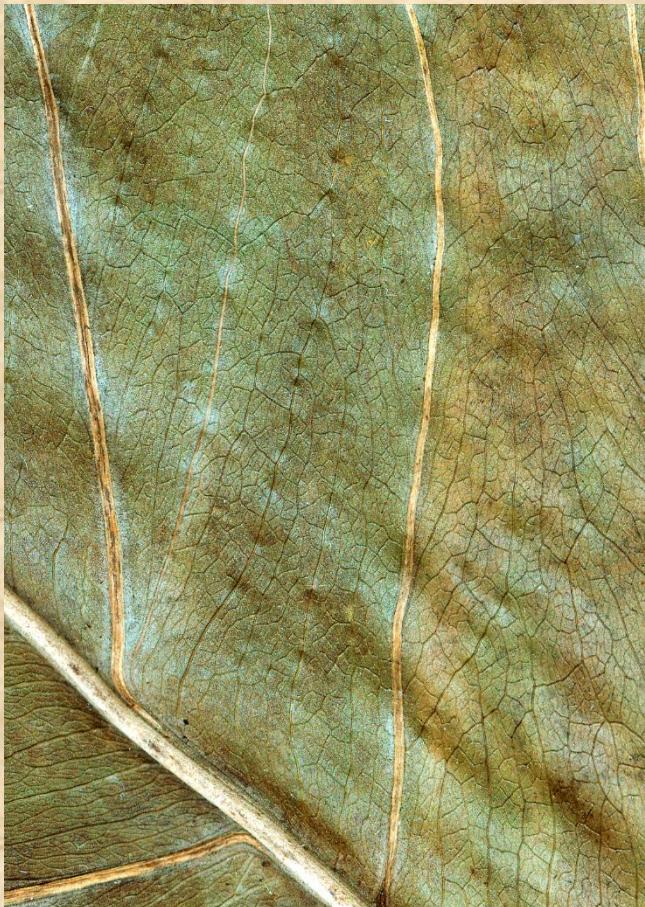


M. acuminata



M. obliqua

# Preparing a working key



Blade with reticulate venation



Blade with parallel venation



MISSOURI BOTANICAL GARDEN

## Key to *Monstera* of Central America

1. Adult leaf blades with secondary venation completely reticulate.

2. Petiole sheath persistent.

*M. membranacea* Madison

*M. florescanoana* Croat, Krömer & Acebey



2. Petiolar sheath deciduous.

3. Peduncles longer than the spadix. *M. zhuii* Croat

3. Peduncles shorter or longer than the spadix.

4. Petioles longer or equal to the length of the midrib of the leaf blade.

*M. deliciosa* Liebm.

4. Petioles shorter than the midrib of the leaf blade.

6. Stems of adult plants more or less flattened laterally *M. filamentosa*

5. Stems of adult plants subcylindric.

6. Leaf blades regularly *M. punctulata* (Schott) Schott ex Engl.

6. Leaf blades not regularly pinnatifid.

7. Leaf blades to rounded at base. *M. dubia*

7. Leaf blades broadly cordate at the base.

*M. siltepecana*



1. Adult leaf blades with secondary venation parallel.



MISSOURI BOTANICAL GARDEN

# Additional Key Characters involving Stems and Petioles

2. Petiole **sheath persistent**.

*M. membranacea*

*M. florescanoana*



2. Petiolar sheath **deciduous**.

3. Peduncles longer than the spadix.

*M. zhuii*

3. Peduncles shorter or longer than the spadix.



4. Petioles longer or equal to the length of the midrib of the leaf blade. *M. deliciosa*

4. Petioles shorter than the midrib of the leaf blade.

5. **Stems** of adult plants more or less **flattened** laterally.

*M. filamentosa*

5. **Stems** of adult plants **subcylindric**.

6. Leaf blades regularly pinnatifid.

*M. punctulata*

6. Leaf blades not regularly pinnatifid.

7. Leaf blades to rounded at base.

*M. dubia*

7. Leaf blades broadly cordate at the base.

*M. siltepecana*



MISSOURI BOTANICAL GARDEN

## Key Characters of Blade Perforations.

9. Leaf blades regularly pinnatifid (rarely on one side only).

10. Leaf blades lacking perforations.

11. Pinnae 15–30 pairs; flowering spadix 3.5–5 cm diam.;  
Nicaragua to Panama. *M. tenuis*

11. Pinnae 4–12 pairs; flowering spadix 1–3 cm diam.

12. Leaf blades broadly cordate at base *M. deliciosa*

12. Leaf blades truncate to acute at base



# Additional Key Characters for Monstera-Peduncle & Spadix Proportions

32. Peduncles shorter than the spadix.

33. Leaf blades generally perforate; petiole sheath deciduous or persisting entire.

*M. barvaensis* Croat

34. Spadices with stigmas rounded or subrounded.

*M. queretaroensis*

34. Spadices with stigma oblong.

35. Internodes 5–11 cm long. *M. acuminata*

35. Internodes short.

33. Leaf blades lacking perforations *M. anomala*

32. Peduncles longer than the spadix.

34a. Inflorescence with spadix narrow, more than 6 times longer than wide.

35. Petioles asperous-verrucose. *M. ortizii*, *M. moralesii*, *M. garwoodiae*, *M. buseyi*, *M. costaricensis*

35. Petioles glabrous and more or less smooth.



MISSOURI BOTANICAL GARDEN



*M. cf. acuminata*, Carnevali 6288



MISSOURI BOTANICAL GARDEN

14 207 PH



Monstera acuminata, Diaz 613



*M. acuminata*,  
Tabasco, vic. Teapa

Monstera  
acuminata





*M. adansonii* var.  
*laniata*



Monstera anomala





*Monstera bocatorensis,*  
Hammel 14599



MISSOURI BOTANICAL GARDEN



*Monstera  
copensis*



**Monstera deliciosa**

A close-up photograph of a large, pale green fruit of the Monstera deliciosa plant. The fruit is heart-shaped with a textured surface featuring numerous small, circular depressions. It hangs from a thick, green, ribbed stem. In the background, other tropical foliage and a paved path are visible.

Monstera deliciosa,  
Cult. Honduras



*Monstera dubia*, juvenile leaves, Mexico, Palenque



MISSOURI BOTANICAL GARDEN



Monstera dubia

*Monstera donosoensis*



30.08.2014 09:57

# *Monstera dwyeri* Croat



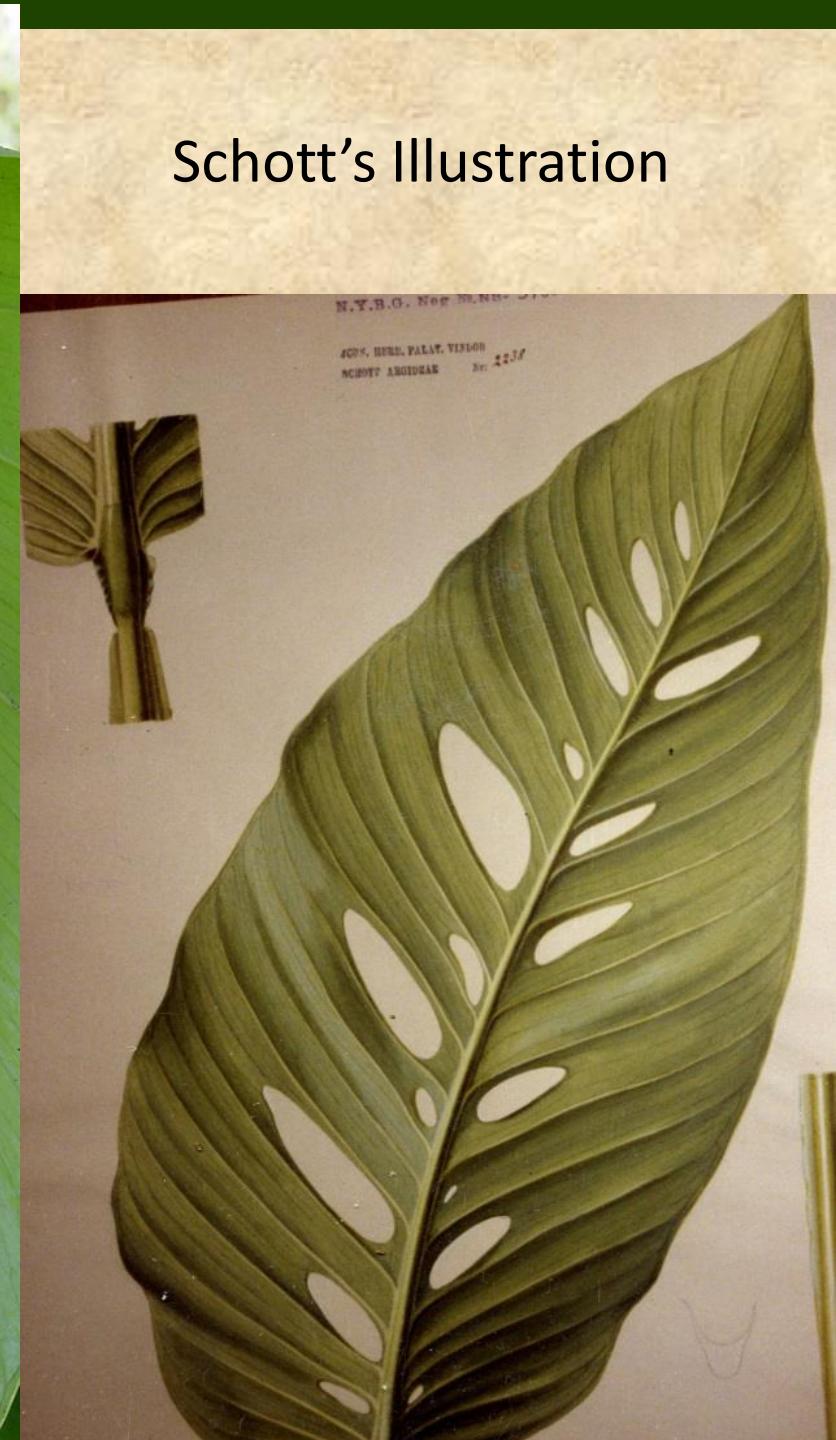
GARDEN



Monstera  
egregia



Monstera egregia



Schott's Illustration





Monstera filamentosa,  
Grayum 8762



# *M. florescanoana*

## T. Kröemer Veracruz (type)



A



B



C



D



MISSOURI BOTANICAL GARDEN

# Monstera florescanoana





*Monstera florescanoana*

*Monstera integrifolia*





*Monstera obliqua*  
Cerro Jefe, Ortiz

# *M. obliqua*



# *M. pinnatipartita*, Monteverde, Costa Rica





*Monstera pinnatipartita*,  
Croat 82540

*Monstera punctulata*



MISSOURI BOTANICAL GARDEN

M. punctulata



*M. spruceana*, Croat 74126



# *Monstera* *standleyana*





*Monstera tarazuensis*

# *M. tarrazuensis*





*M. tenuis*,  
Boquete Area,  
Panama

# *Monstera tiribensis*, Grayum, 3404



RDEN

# **Monstera tuberculata**



# Monstera with bicolored leaves





Panama,  
Boquete to  
Santa Clara



MISSOURI BOTANICAL GARDEN



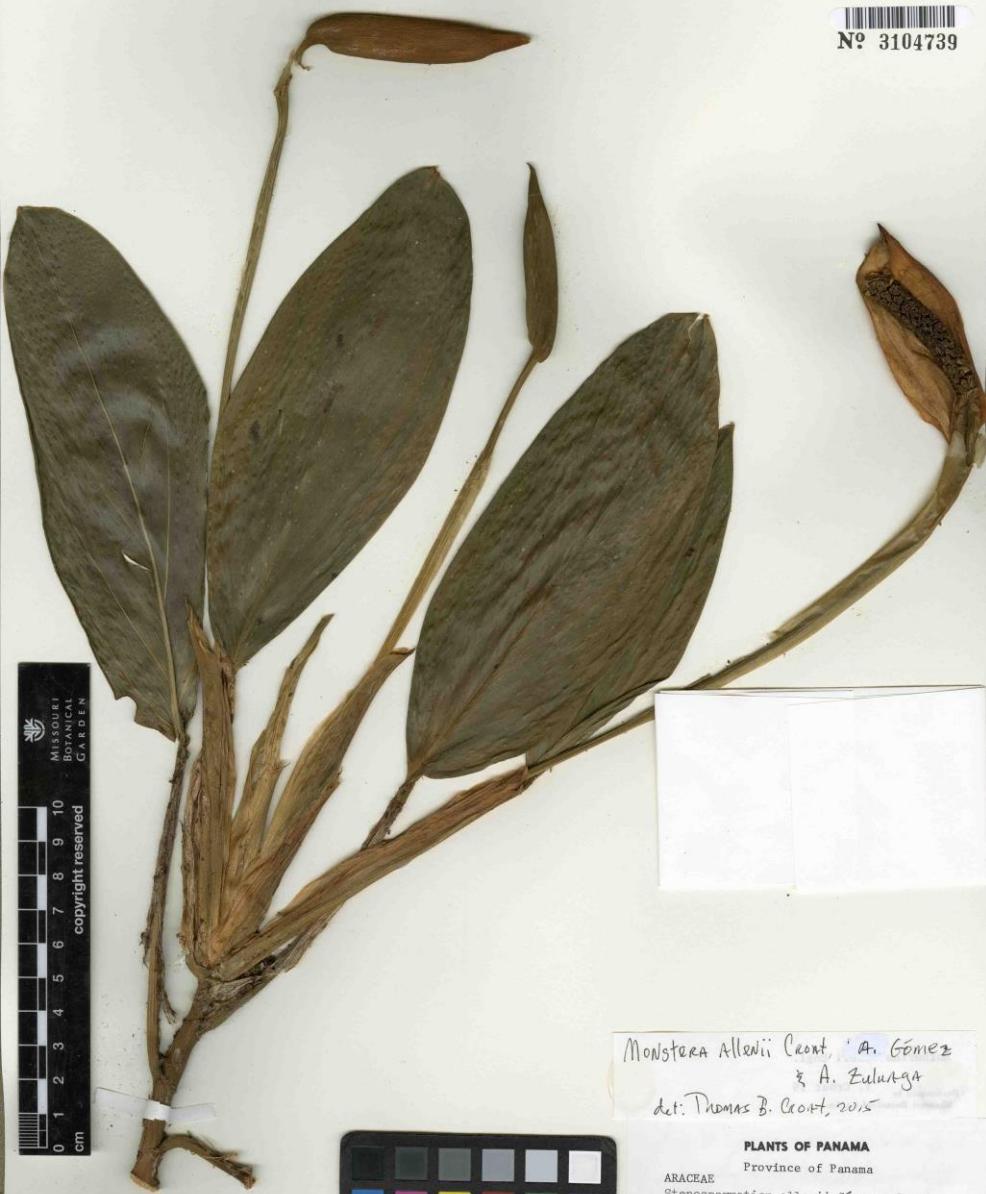
# Monstera alfaroi



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 3104739



*Monstera Allenii* Croat, Ar. Gómez

& A. Zuluaga

det. Thomas B. Croat, 2015

PLANTS OF PANAMA

Province of Panama

ARACEAE

*Stenospermatum allenii* Gómez + Croat

det. Alcira Gómez 1983

NW of Cerro Jefe, Alto de Pacora,

ROPICOS

elev. 650-750 m.

Excoecaria

Epiphytic on side of tree, spathe and  
spadix yellow.

T. Antonio 2502

8 Nov. 1979

Distributed by the Missouri Botanical Garden Herbarium (MO)

# Monstera allenii



MISSOURI BOTANICAL GARDEN



HARVARD UNIVERSITY HERBARIA  
*Monstera adansonii* Schott  
close to *M. lechleriana* Schott, or perhaps  
a new taxon  
det. M. Madison 1975

Sheet 1 of 3  
PANAMA  
Province of Chiriquí  
Family: ARACEAE  
*Monstera Adansonii* Croat  
East of Boquete along steep, forested slopes  
and in wooded pastures on Cerro Azul near  
Quebrada Jaramillo; elev 1620-1700 m  
Epiphytic creeper at 3 m; spadix white;  
spathe white  
det. Thomas B. Croat, 26  
TROPICOS  
Eriococcidae  
Thomas B. Croat 26866 August 11, 1974

MISSOURI BOTANICAL GARDEN HERBARIUM

# Monster alfaroi

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 2251481

MISSOURI  
BOTANICAL  
GARDEN

10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0 cm  
copyright reserved

# Monstera alticola



HARVARD UNIVERSITY HERBARIA

Monstera adansonii Schott  
close to M. lechleriana Schott  
det. M. Madison 1971

Sheet 2 of 3

PANAMA

Province of Chiriquí

Family: ARACEAE  
Monstera alticola Croat

East of Boquete along steep, forested slopes  
and in wooded pastures on Cerro Azul near  
Quebrada Jaramillo; elev 1520-1700 m

Epiphytic creeper at 3 m; spadix white;  
spathe white det. Thomas B. Croat, Jr.

TROPICS  
Excoecaria

Thomas B. Croat 26866 August 11, 1974

MISSOURI BOTANICAL GARDEN HERBARIUM



MISSOURI BOTANICAL GARDEN



0 1 2 3 4 5 6 7 8 9 10  
cm  
copyright reserved

MISSOURI  
BOTANICAL GARDEN  
GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM  
Nº 2251480



# Monstera alticola



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM  
Barcode  
No 2908952



MISSOURI  
BOTANICAL  
GARDEN



SHEET 2 OF 2

Monstera coelensis C. Chr.

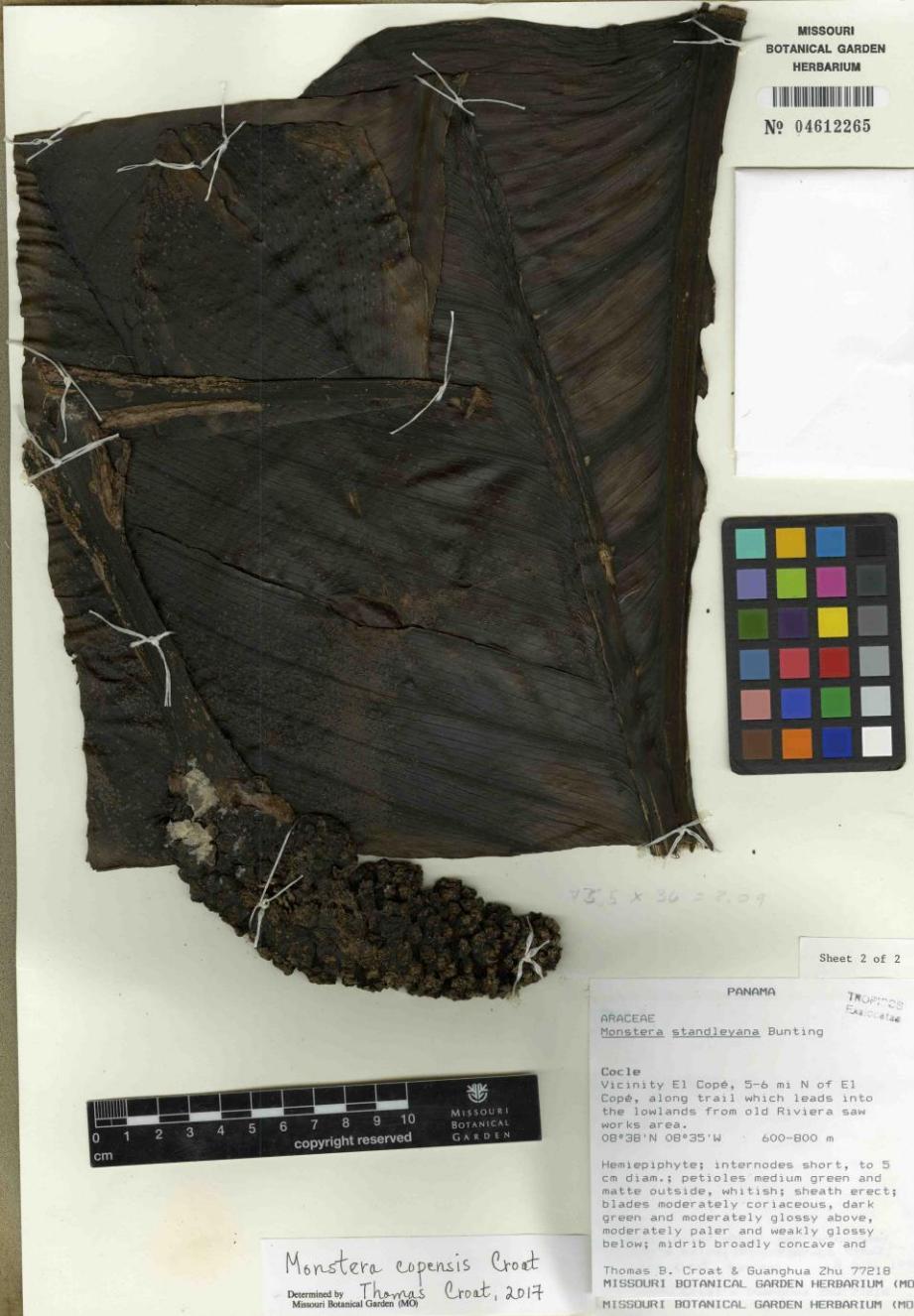
det. Thomas B. Croat, 2006, 0, 2015

K. Bytama + L. Andersson 4529 13 May 1981

MISSOURI BOTANICAL GARDEN HERBARIUM (MO)



MISSOURI BOTANICAL GARDEN



## Monstera copensis



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM



Nº 3300965



3200,-200  
PLANTS OF CENTRAL AMERICA  
COLLECTED FOR THE HERBARIUM OF  
DUKE UNIVERSITY  
ARACEAE  
*Monstera costaricensis* (Engl. & Krause) Croat & Grayum  
det. Tom Croat 1986  
Costa Rica: Provincia de Heredia: Finca  
La Selva, the OTS Field Station on the Río  
Puerto Viejo just E of its junction with the  
Río Sarapiquí. Elevation about 100 m.  
Creciendo cerca de la Quebrada el Guapote  
entre 3200 y - 200.  
Epífita, trepadora, espata blanca, espadice  
amarillo pálido.  
Isidro A. Chacon G. #552 24 Marzo 1983



TROPICOS  
Image

# Monstera costaricensis



MISSOURI BOTANICAL GARDEN

# Monstera deliciosa



MISSOURI BOTANICAL GARDEN



MISSOURI BOTANICAL GARDEN  
1982798  
HERBARIUM



Monstera dilacerata (Koch & Sello) Koch

Michael T. Madison 1975

PLANTS OF PANAMA  
Barro Colorado Island, Canal Zone  
TROPIC  
Epiphytes  
Family: ARACEAE  
Monstera dilacerata C. Koch.  
Clearing at lab  
On tree near Barbour House; epiphytic  
climber; spathes white, covered with reddish  
brown gelatinous secretions, soon falling  
free  
Collected by Thomas B. Croat, No. 7251  
Date: Jan. 15, 1969 SHEET 1  
Distributed by the Missouri Botanical Garden Herbarium (MO)

# Monstera dilacerata



MISSOURI BOTANICAL GARDEN



# Monstera dissecta



MISSOURI BOTANICAL GARDEN

# Monstera dissecta



MISSOURI BOTANICAL GARDEN

(Michael H. Grayum et al. 13242)

ARACEAE

*Monstera cf. dissecta* (Schott) Croat &  
Grayum [23]  
det. M. H. Grayum (MO), 2015

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 6636374



Nº 6636374

46x25  
1.84



Sheet 2 of 2

PANAMA

[23]

ARACEAE

*Monstera donosoensis*  
det. Thomas Croat, 2017  
Colón: Donoso Distrito

Minera Panamá copper-mining concession,  
slopes and ridges in drainage of  
Quebrada Brazo  
08°48'38"N 080°38'18"W 243 m

Stout, appressed-climbing epiphyte on  
trunk of subcanopy tree in forest,  
fertile ca. 5.5 m above ground.  
Petiole-sheath deciduous. Leaf-blade  
sparingly perforate (but not  
pinnatifid). Spathe cream-colored  
TROPIC  
EXCELSIOR  
within.

30 August 201

Michael H. Grayum et al. 13242  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

# Monstera donosoensis



MISSOURI BOTANICAL GARDEN



158 X



Sheet 1 of 2

## PANAMA

ARACEAE *Monstera donosoensis* Croat

det. Thomas Croat, 2017

Colón: Donoso Distrito

Minera Panamá copper-mining concession,  
slopes and ridges in drainage of  
Quebrada Brazo.  
08°48'38"N 080°38'18"W

243 m

Stout, appressed-climbing epiphyte on  
trunk of subcanopy tree in forest,  
fertile ca. 5.5 m above ground.  
Petiole-sheath deciduous. Leaf-blade  
sparingly perforate (but not  
pinnatifid). Spathe cream-colored  
within.

30 August 2014

Michael H. Grayum et al. 13242  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

Page 2

Collectors:

Michael H. Grayum, Gordon McPherson,  
Christel Ramos, Irving Vergara-Pérez &  
Luis Rojas 13242TROPICUS  
Excelsior

# Monstera donosoensis



MISSOURI BOTANICAL GARDEN



# Monstera dubia



# Monstera dubia



MISSOURI BOTANICAL GARDEN



# Mostera dubia

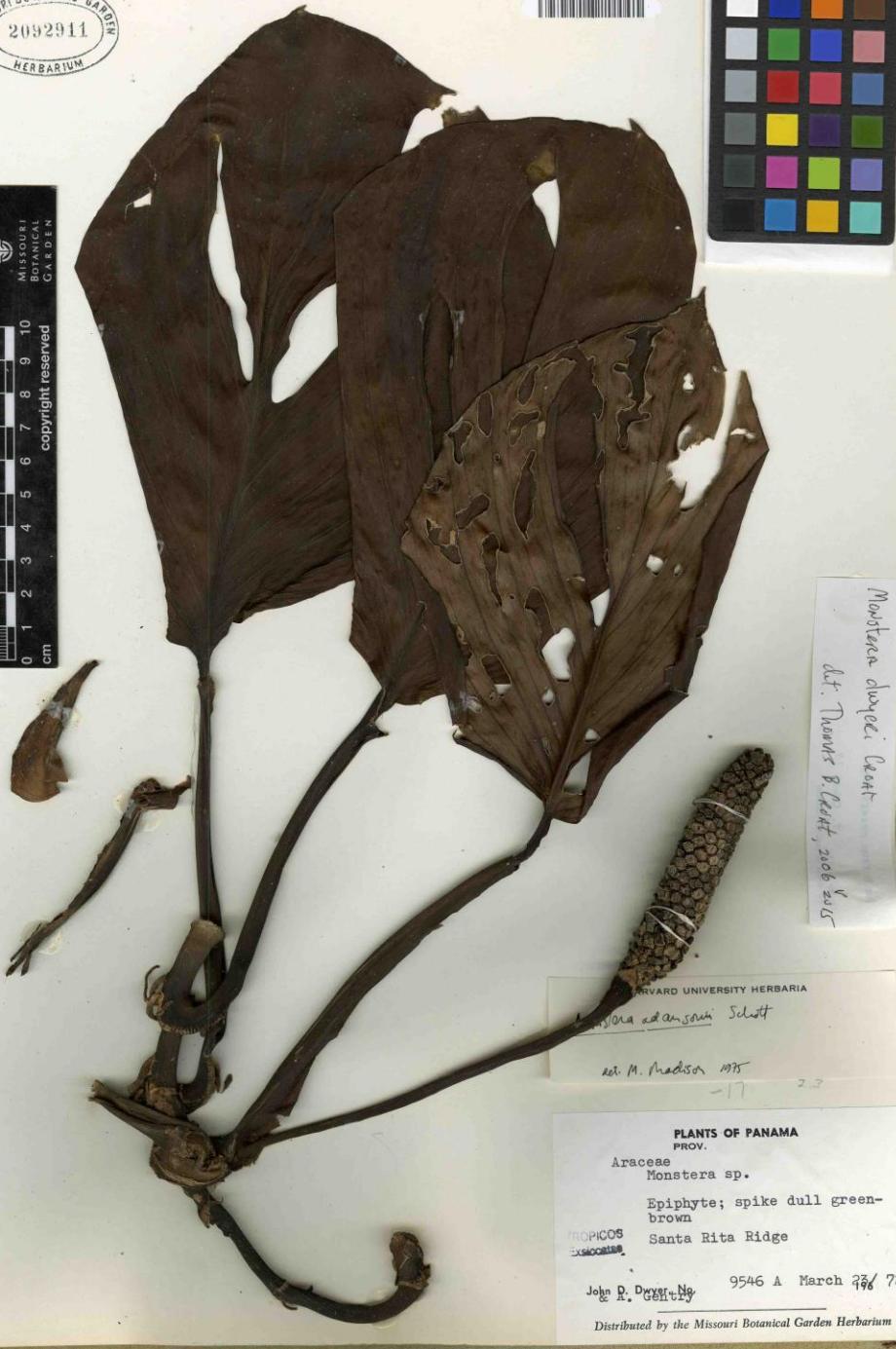


MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL  
GARDEN

MISSOURI  
BOTANICAL  
GARDEN  
copyright reserved  
cm



# Monstera dwyeri



MISSOURI BOTANICAL GARDEN



# Monstera egregia



MISSOURI BOTANICAL GARDEN



# Monstera epipremnoides



MISSOURI BOTANICAL GARDEN



# Monstera epipremnoides



1721953

FIELD MUSEUM  
OF  
NATURAL HISTORY

# Monstera disseccta

Supported in Part by Grants from the National Science Foundation



# Monstera glaucescens



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM



Nº 04623670



# Monstera golfitoensis Croat



MISSOURI BOTANICAL GARDEN



# Monstera golfitoensis Croat



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM  
No 3486368



# Monstera grayumii Croat



MISSOURI BOTANICAL GARDEN

"Fieldwork supported by National Geographic Society"



# Monstera hammelii Croat

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

No 3491509

MISSOURI  
BOTANICAL  
GARDEN

copyright reserved

0 1 2 3 4 5 6 7 8 9 10  
cm

*Monstera hammelii Croat*

Determined by Thomas B. Croat, 19 Feb 2006  
Missouri Botanical Garden (MO) J. 2015/201

SHEET 2 OF 2

PANAMA

TROPICOS

Exsiccatae

Araceae  
*Monstera lechleriana* Shott

Det. B. Hammel Feb. 198

Panama  
Cerro Jefe; in forest along side road  
north off of road to tower.

9°15'N, 79°25'W  
820 m  
Epiphyte fertile at 12 m; leaves thick  
and leathery; lateral veins impressed  
above; petioles mottled; fruits green.

Feb/24/1986  
Barry Hammel & G. McPherson 14534  
MISSOURI BOTANICAL GARDEN

# Monstera hammelii Croat



MISSOURI BOTANICAL GARDEN



# Xanthosoma hannonii Croat



# Monstera hornitioensis Croat



MISSOURI BOTANICAL GARDEN

HERBARIO PMA  
106399  
UNIVERSIDAD DE PANAMA

99462  
Herbario Universitario de Panamá (PMA)



# Monstera ibaneziae Croat



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM



Nº 2639490



PANAMA  
Province of Chiriquí  
Family:  
**MONSTERA** integrifolia Zuluaga  
Fortuna dam site; forest area; 1400-1600 m.  
Zuluaga & Croat  
vine, stem with pale lenticels;  
fruit white  
TROPICOS  
E 2000

J. P. Folsom &  
R. Dressler & K. Dressler 5598 15 Sept. 1977

# Monstera integritifolia Zuluaga & Croat



MISSOURI BOTANICAL GARDEN



# Monstera knappiae Croat



MISSOURI BOTANICAL GARDEN

(Liesner & Judziewicz 14549)  
Holotype: Sheet 1 of 2  
*Monstera lentii* Croat & Grayum, in  
Ref. Grayum  
Phytologia 82: 46. 1997.  
Missouri Botanical Garden (MO)

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Barcode  
Nº 3116693

(Ronald Liesner & Emmet Judziewicz 14549)  
ARACEAE  
*Monstera lentii* Croat & Grayum  
Det. M.-H. Grayum (MO) \* 2003  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

49.5 x 30.7 = 166x

TYPE SPECIMEN  
Missouri Botanical Garden (MO)

SHEET 1 OF 2

COSTA RICA

ARACEAE

*Monstera dilaterrata* (Koch & Sello) Koch  
det. Tom Croat 1984

Prov. Cartago. 10 km S of Cartago by  
air. Along confluence of Rio Empalme  
and Rio Estrella. 1 km S of Palo Verde  
by road. Paloverde is 1.5 km S of Pan  
American Hwy on road to Estrella.  
1450 m alt. 9°46'N, 83°57'W.

Epiphyte 3 m in tree.

Kiwanse, CR, RSA

Ronald Liesner &  
Emmet Judziewicz 14549  
21 April 1983

Missouri Botanical Garden Herbarium (MO)



# Monstera lentii Croat & Grayum

(Ronald Liesner & Emmet Judziewicz 14549)

ARACEAE

*Monstera lentii* Croat & Grayum

Det. M.H. Grayum (MO), 2003

MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM



Nº 3116694



(Liesner & Judziewicz 14549)  
Holotype:  
Sheet 2 of 2  
*Monstera lentii* Croat & Grayum, in  
Ref. Grayum,  
*Phytologia* 82: 46. 1997  
Missouri Botanical Garden (MO)



TYPE SPECIMEN  
Missouri Botanical Garden (MO)

SHEET 2 OF 2

COSTA RICA

ARACEAE

*Monstera dilacerata* (Koch & Sello) Koch

det. Tom Croat 1984

Prov. Cartago. 10 km S of Cartago by air. Along confluence of Rio Empalme and Rio Estrella. 1 km S of Palo Verde by road. Paloverde is 1.5 km S of Pan American Hwy on road to Estrella. 1450 m alt. 9°46'N, 83°57'W.

Epiphyte 3 m in tree.

Ronald Liesner &  
Emmet Judziewicz 14549  
21 April 1983

Missouri Botanical Garden Herbarium (MO)

# Monstera lentii Croat & Grayum



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL  
GARDEN

copyright reserved

0 1 2 3 4 5 6 7 8 9 10  
cm

FLORA OF COSTA RICA  
*Monstera luteynii* Madison

Hanging epiphytic vines. Spath splits open in irregular pieces & is white. Remnant trees in pasture, 2 Km N.E. of La Balma de San Ramón  
Date: 26 Sept. 1976 Alt: 900 meters  
10° 41' N, 84° 29' W. No. 3889  
Prov. Alajuela Collected by Roy W. Lent

*Monstera luteynii* Madison



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

copyright reserved

MISSOURI  
BOTANICAL  
GARDEN

Nº 6240502

0 1 2 3 4 5 6 7 8 9 10  
cm



TROPICOS  
Image

[A. Karney s.n.]  
Holotype of:  
*Monstera maderaverde* Grayum &  
Karney  
Ref.  
Econ. Bot. 66 (2): 209. 2012.  
Missouri Botanical Garden (MO)  
[Sheet 2 of 2]

HONDURAS  
ARACEAE  
*Monstera* [23]

#### Atlántida

Mezapita Cloud Forest, Cordillera Nombre de Dios. Ca. 7.2 km SSE of Mezapita (as the crow flies), on ridge forming the divide between the basins of the Ríos Mezapa and Mezapita. 15°30'13"N 087°19'41"W *Exsiccatus* 1160 m

This epiphyte species of unknown identification, known locally as "mimbre," is used by artisans in the Honduran community of Mezapita (Mun. of Arizona, dept. of Atlántida) to make hats, furniture, and various figurines.

07 November 2010

Alex Karney s.n.

MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

Alex Karney s.n.

MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM



No 2984200



SHEET 1 OF 2

PANAMA  
Province of Coclé

*Monstera madisonii* Croat

Determined by Thomas Croat, 2017  
Missouri Botanical Garden (MO)

Hills N of El Valle, E slope and ridges leading to  
Cerro GAital. Premontane rainforest. 900-1000 m.  
8°40'N, 80°07'W

Huge epiphyte; spadix white; "Trunk" ca.  
7 cm diameter.

PROB NO. 5356  
Explanations

S. Knapp 5356 30 May 1982  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 3874395



ARACEAE Herrera # 4062  
*Monstera membranacea* Madison

Det. M. Grayum, 1991  
Missouri Botanical Garden Herbarium (MO)  
MUSEO NACIONAL  
COSTA RICA

ARACEAE dup. = 4  
*Monstera*

Det.

PUNTARENAS: Parque Nacional Corcovado  
La Palma, Río Rincón aguas arriba,  
camino a Cerro de Oro.  
8°36'N 83°30'40"W 100 m  
Epífita, trepadora. Espata amarillo-verde, espádice amarillo. Infrutescencia  
inmadura verde.

Gerardo Herrera 4062

30 July 1990

HERBARIO NACIONAL DE COSTA RICA (CR)  
INSTITUTO NACIONAL DE BIODIVERSIDAD//MISSOURI BOTANICAL GARDEN (MO)



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

No 3874395



ARACEAE Herrera # 4062  
*Monstera membranacea* Madison

Det. M. Grayum, 1991  
Missouri Botanical Garden Herbarium (MO)

MUSEO NACIONAL  
COSTA RICA

dup. = 4

ARACEAE  
*Monstera*

Det.

PUNTARENAS: Parque Nacional Corcovado  
La Palma, Río Rincón aguas arriba,  
camino a Cerro de Oro.  
8°35'N 83°30'40"W 100 m  
Epifita, trepadora. Espata amarillo-verde, espádice amarillo. Infrutescencia  
inmadura verde.

Gerardo Herrera 4062

30 July 1990

HERBARIO NACIONAL DE COSTA RICA (CR)  
INSTITUTO NACIONAL DE BIODIVERSIDAD//MISSOURI BOTANICAL GARDEN (MO)



MISSOURI BOTANICAL GARDEN



Type Specimen  
HERB. M.B.G.

PANAMA AP'TEAE  
Comarca de San Blas  
*Monstera pittieri* Engl.  
Scandent epiphyte; spadix green.  
Det. T. Croat, 1971  
23-17.  
Trail east of Ganganzi-Mandinga airport  
road, 2-5 miles s. of Mandinga airport  
J. A. Duke No. 14768(3) Oct. 27, 1967

Holotype of *Monstera minima*  
Madison  
Ref. Contr. Gray Herb.  
207: 72 (177)  
Missouri Botanical Garden (MO)

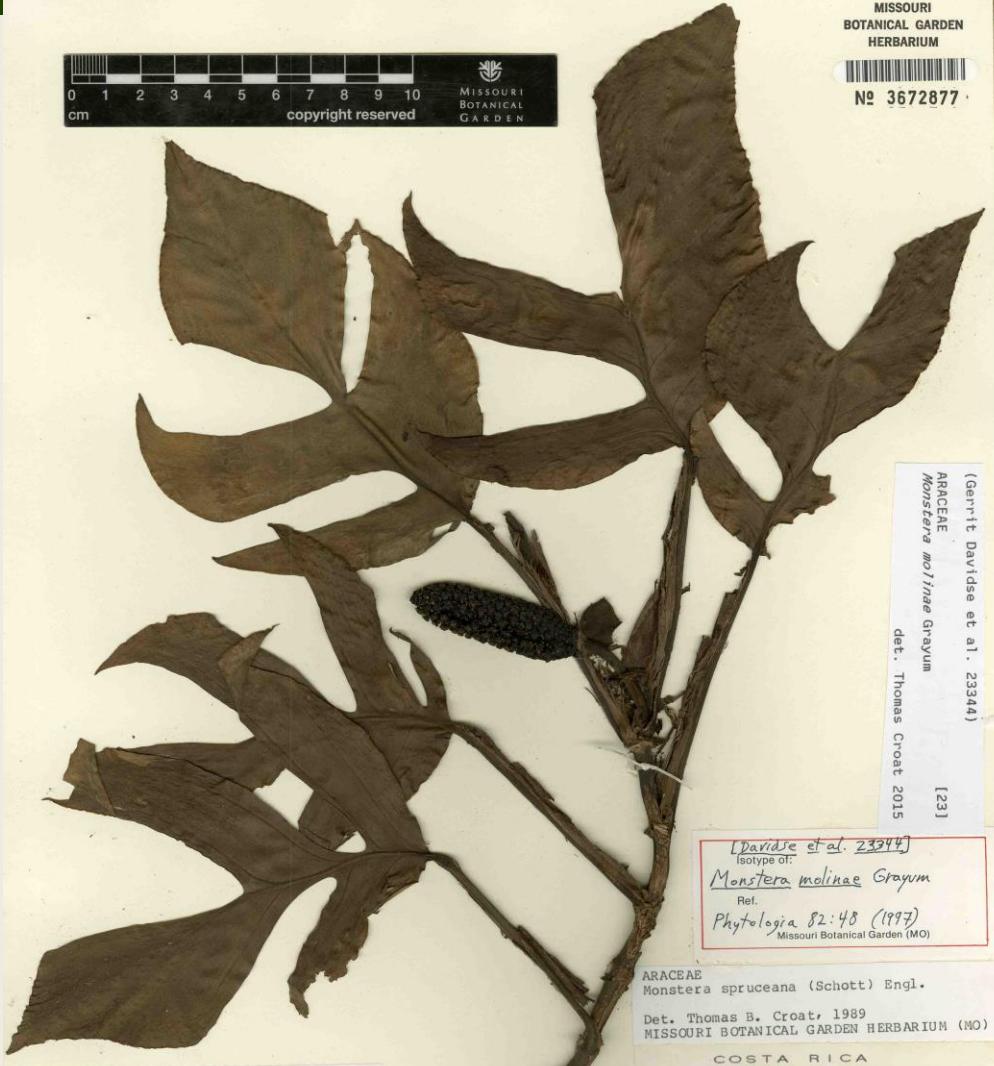
HOLO TYPE  
*Monstera minima* Madison  
M. Madison 1975  
10 July  
Gray Herbarium of Harvard University





MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 3672877



(G. Davidse et al. 23344) TROPICS  
ARACEAE Exaltosiae  
*Monstera molinae* Grayum

Det. M. H. Grayum (MO), 2003  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)



TYPE SPECIMEN  
Missouri Botanical Garden (MO)

Colls. G. Davidse, L.D. Gomez, M. Sousa,  
C.J. Humphries, N. Garwood, R. Hampshire  
& M. Gibby



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 6286487



Monstera moralesii Croat

Determined by Thomas Croat, 2017  
Missouri Botanical Garden (MO)



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 6176110



24/11/2012

MISSOURI  
BOTANICAL  
GARDEN

copyright reserved



24/11/2012



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 6176110



311462

MISSOURI  
BOTANICAL  
GARDEN

copyright reserved

0 1 2 3 4 5 6 7 8 9 10  
cm



TROPICOS  
Exsiccatae  
INB0004122851

Plants del Parque Internacional La Amistad

COSTA RICA

Araceae      dup ad.  
*Dieffenbachia rodriguezii* Croat & O. Ortiz  
det Orlando Ortiz

Limon, Z.P. Rio Barano, Cuenca del Barano, Limon, Valle La Estrella Flta  
Materna. Ca. 11 km NW del Pueblo de Agua Zarca, Punto 20.

09°48'46.8360 N -83°10'05.9520 W 1300 a 1400 m  
Hieba de 0.40-0.60 cm. Espata verde externa e internamente. Frutos  
anaranjados al madurar. Hojas con el nervio central en el lado adaxial  
verde-pálido y contrastante con el resto de la lámina. Bajo bosq., a orilla  
de quebrada, muy abundante.

11460

A. Rodriguez 11460  
A. Monro, D. Santamaría, D. Solano, B. Gamboa R., E. Boza, M. Hern  
Una colaboración del Instituto Nacional de Biodiversidad (INB),  
la Universidad de Panamá (UPA) y The Natural History Museum,  
London (BM) con el apoyo de Iniciativa DARWIN



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

6176108

0 1 2 3 4 5 6 7 8 9 10  
cm  
copyright reserved

MISSOURI  
BOTANICAL  
GARDEN

Sheet 1 of 3

TROPICOS  
Exsiccatum

INB0004156507  
Plantas del Parque Internacional La Amistad

COSTA RICA

dup.=2/6 partes

Araceae  
Monstera *santamariae* Croat

det. Thomas B. Croat, 2015  
Puertorras. Buenos Aires: Distrito Central. Cuencas Téraba-Sierpe  
Buenos Aires, Potrero Grande, La Lucha. Punto 8. Bloque dentro 5-25 m  
DAP 30-90 cm. Predominio de *Hamelia appendiculata*, *Cecropia* sp.  
*Rudgea glabra*, Lauraceae y teleófitos arboreoscientes.

08°06'26.6870 N -83°05'46.5854 W 1400 a 1500 m  
Epífita fuertemente adpreso, fértil, a 6 m. Espádices verde claro.

D. Santamaría 7036

20feb/2008

D. Solano, A. Rivera Cascante, A. Rodríguez, W. Gariboa

Una colaboración del Instituto Nacional de Biodiversidad (INB), la  
Universidad de Panamá (UP) y The Natural History Museum, London  
(BM) con el apoyo de Iniciativa DARWIN



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

6176108



MISSOURI  
BOTANICAL  
GARDEN

Sheet 1 of 3

TROPICOS  
Exsicatas

INB0004136307  
Plantas del Parque Internacional La Amistad  
COSTA RICA

Araeaceae dup.=2/6 partes  
Monstera *SANTAMARIAE* Ceoot  
det. Thomas B. Croat, 2015  
Puriscal, Buenos Aires, Dist. La Amistad, Cerros Térnate-Serrpe,  
Buenos Aires, Potrero Grande, La Lucha, Funito & Bosques, 5-20 m  
DAP, 30-90 cm. Predominio de *Hamelia appendiculata*, *Cecropia* sp.,  
*Ruagea glabra*, Lauraceae y helechos arboreos.

09°06'26.6870 N -83°05'46.5654 W 1400 a 1500 m  
Epifita fuertemente adhesa, fértil, a 6 m. Espádice verde claro.

D. Santamaría 7036 20feb/2008  
D. Solano, A. Rivera Cascalte, A. Rodríguez, W. Gariboa  
Una colaboración del Instituto Nacional de Biodiversidad (INB), la  
Universidad de Panamá (UPNA) y The Natural History Museum, London  
(BM) con el apoyo de Iniciativa DARWIN



MISSOURI BOTANICAL GARDEN

No 3585257



SHEET 2 OF 2

ARACEAE (Hammel 16426)  
*Monstera cf. dilacerata* (C.Koch & Sello)  
C.Koch

Det. : Tom Croat 1988  
Missouri Botanical Garden Herbarium (MO)

PANAMA

ARACEAE  
*Monstera*

Det.

Darien: Parque Nacional del Darien  
W slope of Cerro Malí, on ridge between  
N & S branches of Rio Pucuro; ca. 18 km  
E of Pucuro.  
8°04'N 77°16'W 1000-1200m  
climbing epiphyte; veins white below.

(Barry E. Hammel, Greg C. de Nevers,  
Hermes Cuadros V. & Heraclio Herr 16426)  
[23]  
ARACEAE  
*Monstera spruceana* (Schott) Engl.

det. Thomas Croat 2015

(B. Hammel G. de Nevers,  
H. Cuadros & H. Herrera 16426)  
TROPICOS  
Exsiccatas

ARACEAE  
*Monstera spruceana* (Schott) Engl.

Det. M.H. Grayum (MO), 1996  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)

B. Hammel 16426 22 October 1987  
& G. de Nevers, H. Cuadros & H. Herrera  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)  
Field work supported by the National Geographic Society



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

No 2393193

1.8X

ARACEAE OF CENTRAL AMERICA  
COSTA RICA

Province of : Alejuela

*Monstera staudleyana* Bunting

3 miles N of San Miguel on road between  
Vara Blanca and Puerto Viejo; elev. 380 m.

Epiphytic; caudex to 8 cm diam; petioles  
camaliculate above sheath; blades dark  
green above with midrib broadly sunken, the  
major laterals sunken, minor laterals obscure,  
blade paler beneath, semiglossy with major  
laterals whitish, minor laterals darker  
green, densely and obscurely short white  
lineate beneath; fruiting inflorescence  
green.



TROPICOS  
Exsiccatum

Thomas B. Croat 35667 26 May 1976  
MISSOURI BOTANICAL GARDEN HERBARIUM



MISSOURI BOTANICAL GARDEN



MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 04838468



UNIVERSIDAD NACIONAL AUTONOMA DE  
MEXICO INSTITUTO DE BIOLOGIA  
Estación de Biología Tropical "Los Tuxtlas"

Familia	ARACEAE
Género	Monstera
Espécie	tuberculata
Autor	Lundell
Determinó	Amparo Acebey & Thorsten Krömer, 2005

Localidad de colecta  
Balzapote, Parcela Escolar, Ejido Balzapote, Mpio. de San Andrés Tuxtla, Estado de Veracruz, México.

Cordenadas	Elevación (msnm)
18°36' N y 95°04' O	60 msnm

Tipo de vegetación  
Plantación de cítricos

Forma de vida	Hierba epífita
Datos complementarios	
Parte, inflorescencia verde	

Colector (es)  
Thorsten Krömer, Amparo Acebey & Adams  
Pérez Peña

Num de colecta 2461 Fecha de colecta 04.08.2005



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

Nº 4361940



MISSOURI  
BOTANICAL  
GARDEN

*Monstera tuteense* Croat

Determined by Thomas B. Croat, 1917  
Missouri Botanical Garden (MO)

Sheet 2 of 2

PANAMA

TROPICOS  
Exsiccatae

ARACEAE  
*Monstera oreophila* Madison

Det. Thomas B. Croat, 1989

VERAGUAS  
Vicinity of Santa Fe on slopes of Cerro  
Tute-Arizona above school at Alto  
Piedras; on trail to summit.  
8°30'N 81°10'W 900-1100 m

Epiphytic; petiole flat with raised  
edges; blade somewhat glossy on both  
sides; fruit white with black stigmas.

29 January 1989

Gordon McPherson 13672  
MISSOURI BOTANICAL GARDEN HERBARIUM (MO)



MISSOURI BOTANICAL GARDEN

MISSOURI  
BOTANICAL GARDEN  
HERBARIUM

No 2979821



MISSOURI  
BOTANICAL  
GARDEN  
copyright reserved  
0 1 2 3 4 5 6 7 8 9 10 cm



PLANTS OF CENTRAL AMERICA  
COLLECTED FOR THE HERBARIUM OF  
DUKE UNIVERSITY

MONSTERA lechleriana Schott  
T. Croat 1982

Costa Rica: Province de San José: Altos de Tablazo - about 5 km SE of Higuito on Calle Tablazo or about 12 km SE of Desamperados. Alt. 1800-1900 m.

Epiphyte; spadix white. 09°49'N, 84°02'W

TROPICACEAE  
Exocystaceae

John and Kathy Utley #3840  
30 January 1976

Monstera utleyorum Croat

det. Thomas B. Croat, 2015



MISSOURI BOTANICAL GARDEN



MISSOURI BOTANICAL GARDEN



MISSOURI BOTANICAL GARDEN



MISSOURI BOTANICAL GARDEN