

# Revision of Stenospermatation for Central America

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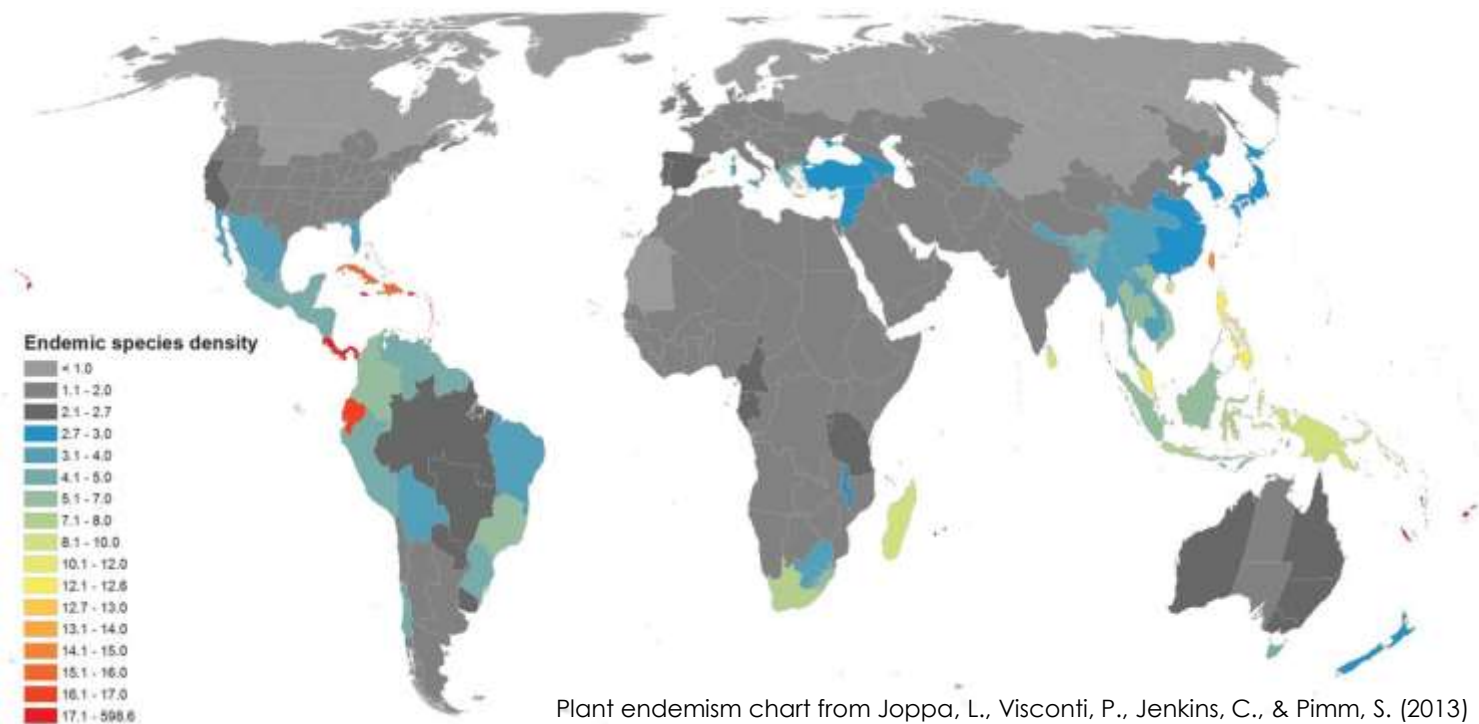
# Overview

- Introduction to Stenospermatation and Araceae
- Methods for writing a genus revision
- Products of the treatment and our current species count



# Taxonomy

- Uses for an accurate species count:
  - Endemism and species richness mapping
  - Political and conservation implications



# Araceae

- Stenospermatum is a genus in the family Araceae
- Insect trapping, thermogenesis
- Defined by a inflorescence called a spadix and a bract called a spathe
- Incredibly morphologically diverse family



# Araceae



# Araceae



# Stenospermation



PC Tom Croat



PC Tom Croat



PC Tom Croat



# Revision

- The Revision for Central America includes:
  - Introduction
  - Generic description
  - Key
  - Species descriptions
  - Discussions
  - Exsiccate





# Methods

- ▣ Identifying new species from defining character traits
  - ▣ Literature search
  - ▣ Keying out species
  - ▣ Identifying a species as new
  - ▣ Describing the species in full
- ▣ Adolf Engler's original revision (1908), Alcira Gomez's Thesis (1983)



# Characters



frayed margin



intact margin



stipitate spadix



sessile spadix



scattered base flowers



sterile flowers at apex

## Leaf surface characters

dark-punctulate



short-pale-lineations



areolate texture



granular texture



# Species Descriptions

- Uses a formulaic template
- Requires knowledge of botanical vocabulary
- Several Parts of a species description
  - Name and type information
  - Description
  - Range and life zone
  - Defining characteristics
  - Comparison to similar species
  - Naming rationale



# The Key

- A key is a tool for identifying species based on a specimen
- Organized by matching couplets
- Comparison table
- Process of comparison, organization, and processing of plant traits



A. Blades drying subcoriaceous to thin, usually gray-green, yellow-green, or black, usually less than 22 cm long

H. Petioles sheathed to less than 3/4 its length

I. Stem with internodes about as long as broad or shorter, usually less than 8 mm long

J. Blades greater than 4.5 times longer than broad

**S. luisgomezii** Croat

J. Blades less than 3.7 times longer than broad

K. Spadix sessile to subsessile

L. Spathe linear, more than twice as long as spadix

**S. pucuroense** Croat

L. Spathe elliptic, less than 1.5 times longer than broad

**S. zurquiense** Croat

K. Spadix distinctly stipitate

M. Spadix 3 times longer than broad

**S. hodellii** Croat

# Results

33 species of *Stenospermation* are hypothesized to be in Central America, 23 of which were new.

<i>S. andreanum</i> Engl.	<i>S. malonianum</i>
<i>S. angustifolium</i> Hemsl.	<i>S. marantifolium</i> Hemsl.
<i>S. boquetense</i>	<i>S. monroi</i>
<i>S. castanoanum</i>	<i>S. morii</i>
<i>S. calvarioense</i>	<i>S. multicoatum</i> Croat
<i>S. churchillii</i>	<i>S. multiovulatum</i> (Engl.) N. E. Brown
<i>S. darienense</i>	<i>S. nusigandense</i>
<i>S. densiovulatum</i> Engl.	<i>S. ortizii</i>
<i>S. ellipticum</i> Croat & Bay	<i>S. pirrense</i>
<i>S. fortunense</i>	<i>S. pteropus</i>
<i>S. hageniorum</i>	<i>S. pucuroense</i>
<i>S. hammelii</i>	<i>S. quichense</i>
<i>S. hodellii</i>	<i>S. robustum</i> Engl.
<i>S. kirkbridei</i>	<i>S. sessile</i> Engl.
<i>S. luisgomezii</i>	<i>S. topalisense</i>
<i>S. luteynii</i>	<i>S. zurquiense</i>
<i>S. majus</i> Grayum	



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Questions

Preguntas

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