

Stenospermation (Araceae) of the Lita-San Lorenzo region, Esmeraldas Province (Ecuador)



S. scariosum

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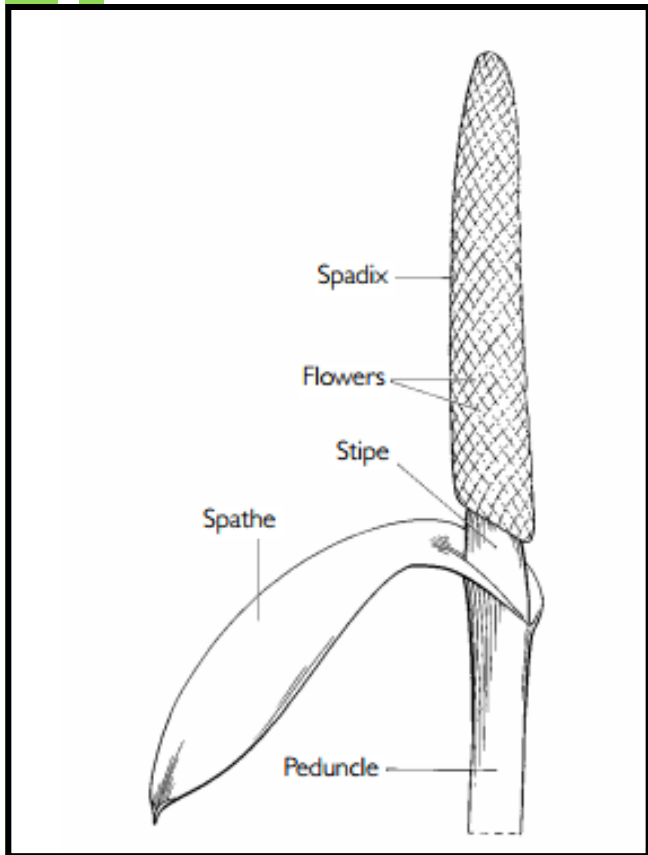


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Araceae



- Herbaceous monocots
- 125 genera – 3750+ species
- Primarily tropical
- Distinctive floral morphology – spathe and spadix

Araceae



Stenospermation Schott 1858

- Neotropical
- From Central America to Amazon Basin and Atlantic Brazil
- Subfamily Monsteroideae
- Relatively unstudied
 - Last revision – 1908 with 21 species
 - 110 published species
 - 250+ expected



Stenospermation

- Mostly epiphytic or hemiepiphytic
- Petioles prominently sheathed
- Moderately coriaceous mostly medium to dark green blades
- Inflorescence erect with a deciduous usually white spathe and a usually white spadix



Mayo et al. 1997

Lita-San Lorenzo

- Northwest Ecuador
- High rate of endemism
- Collections along Lita-San Lorenzo Road
- Several aroid studies planned for the region



History of the Lita-San Lorenzo Region



- Ibarra-San Lorenzo train line constructed in 1908
- Timber industry–Balsa wood
- In 1998, rail line discontinued, road was instated
- Plans to expand the road

Methods

- Collections were made by Tom Croat and colleagues from 1998–2005
- Undetermined MBG herbarium specimens from the same region were combined
- Keyed to known species or sorted into putative species groups
- Species were described and key for the region was produced
- Type specimens scanned and entered into Tropicos (www.Tropicos.org)

Characters

- Inflorescences?

S. scariosum



S. costatum



S. tululbiense



Characters

- Magnified leaf surface

S. scariosum



S. costatum



S. tululbiense



Characters

S. nigropunctatum



S. kinsingeriae

S. minor



S. cornejoi

Characters

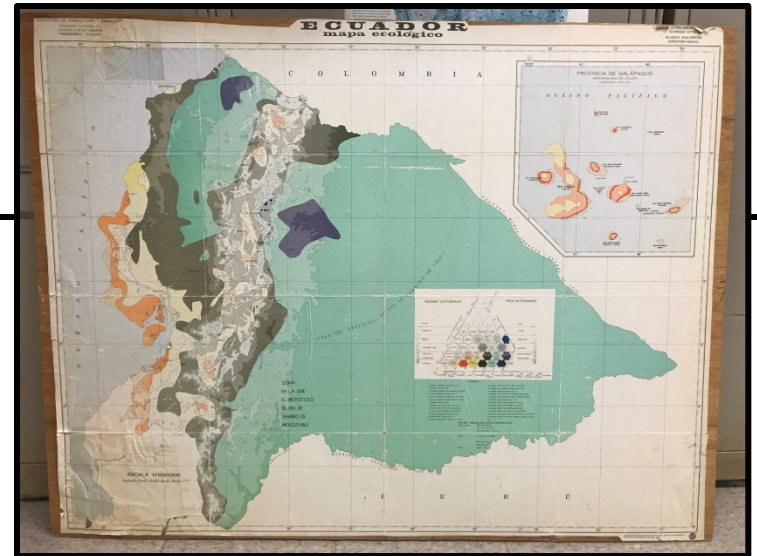
- Habit
- Internodes
- Petioles
- Blades
- Midribs
- Primary lateral veins
- Upper and lower blade surfaces
- Peduncles
- Spathe
- Spadix
- Flowers

S. viridilaminum



Species Descriptions

- Character description
- Range, elevation, and Holdridge life zone
- Diagnosis
- Comparison
- Etymology



Results

- 32 species of *Stenospermation* were identified in the Lita-San Lorenzo region. Of these:
 - 5 are previously published species, found throughout Ecuador or in other countries
 - 16 are new species, endemic to the Lita-San Lorenzo region and have been given a scientific name
 - 11 are new species, unable to be named because of the lack of fertile material but are instead assigned a unique number

Results

S. bethoveniae

S. brunneus

S. carlseniae

S. casablancense

S. chuchubiense

S. cornejoi

S. costatum

S. grandilaminum

S. hannoniae

S. kinsingeriae

S. mansellii

S. minor

S. montenegrae

S. purpurascens

S. scariosum

S. schwerdtfegerii

Discussion and Future Directions

- *Stenospermation* is larger than thought
- More collections needed
- Revision is needed
- Further studies in the Lita-San Lorenzo region

S. costatum



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Questions?



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