



# Integrative conservation program for Zamiaceae in Santander Colombia JBEV-CDMB



## THREE SPECIES

*Zamia encephalartoides D.W.Stev.*



*Zamia incognita A.Lindstr. & Idárraga*



*Zamia incognita A.Lindstr. & Idárraga*



*Zamia encephalartoides* D.W.Stev.



# DISTRIBUTION OF THE *Zamia encephalartoides* POPULATIONS



# RESEARCH INTERNSHIPS

- Demographic and habitat description of a *Zamia encephalartoides* population and comparison of functional traits in two species of the genus of *Zamia*: (*Z. encephalartoides* y *Z. incognita*). *Jhon Alexander Mantilla*

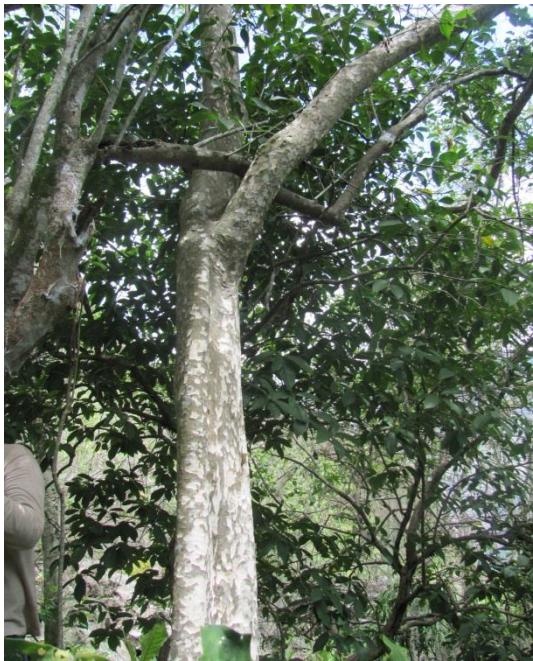


I

- Describe demographic parameters, functional traits and habitat characteristics of a population of *Zamia encephalartoides* to provide new information and support the action plan for the conservation and protocol standardization, germination and propagation of the species.

The sampling area is a very steep rocky terrain type, with slopes of more than  $30^{\circ}$  which has a plant cover dominated by shrubs and some trees with large diameters. These are found in areas of low slope where there is a more structured soil allows the establishment of these tree species.





# PHENOLOGICAL MONITORING

✓ Collection of cones



# MANEJO DE SEMILLAS EN LABORATORIO

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Extracción  
de las  
semillas del  
estróbilo

Lavado de  
las semillas

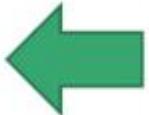
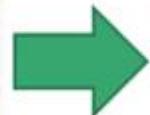
Remoción  
del arilo

Lavado y  
alcohol

Perforación  
de la testa



✓ Monitoring the development of the seedling of *Zamia encephalartoides*



# Outreaching with the community



Construction of the greenhouse “Menzuly” in a área of the Chicamocha river canyon to continue the propagation of *Zamia* species





*Zamia incognita*  
A. Lindstr. & Idárraga





# *Zamia incognita A. Lindstr. & Idárraga*



Estróbilo femenino , Hábito y estróbilo masculino de *Zamia muricata*.







# ¡SE BUSCA!



Planta Juvenil



Fruto Hembra



Fruto Macho

Planta  
Adulta



JARDÍN BOTÁNICO ELOY VALENZUELA

Excelente Recompensa

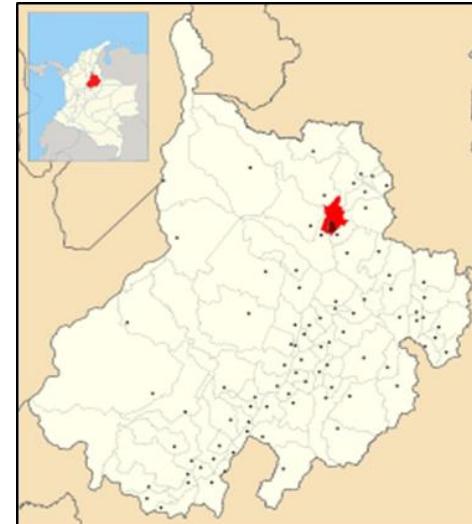
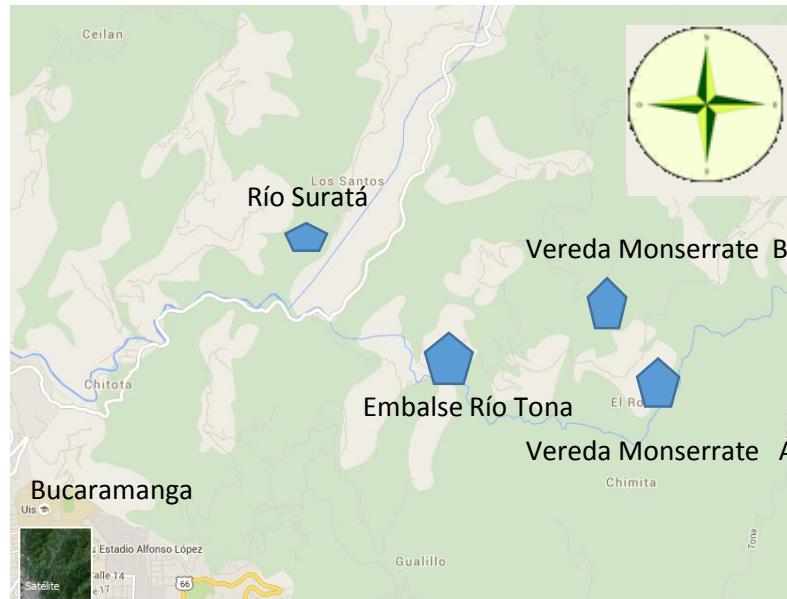
Llame a los siguientes teléfonos

Sofía Gómez 3153507255  
Alicia Rojas 3156420875



# DISTRIBUTION OF THE *Zamia incognita* POPULATIONS

- Border between Bucaramanga y Tona
- 4 localities 1200 – 1400 masl
- Tropical dry forest



- Demographic and habitat characterization of a *Zamia Zamia incognita A.Lindstr. & Idárraga.* population to support the integral conservation program of priority plants in the tropical dry forest.

Raquel Sofía Gómez

Rescue and relocation of the population was carried out because the hábitat will be flooded.





Subpob. 2

Subpob. 1

Subpob. 3

Subpob. 4

- Individuos zona de inundación
- Individuos zona de amortiguamiento

92 m

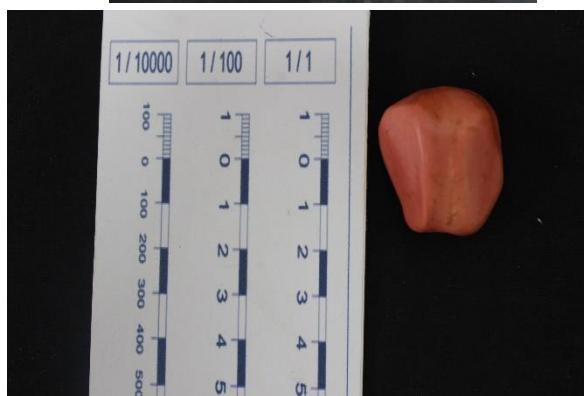


- Description of demographics, habitat and functional traits variability in three populations of *Zamia incognita A.Lindstr. & Idárraga*, in dry forests of Santander.

Jeffrey Vega





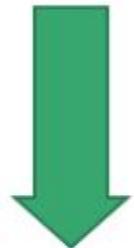
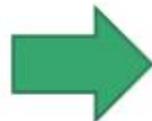


# ✓ Laboratory

- The seeds are extracted of the strobilus
- The seeds are washed
- The seed coat is removed
- The seed is perforated on the distal pole



- Monitoring the development of the seedling of *Zamia incognita A.Lindstr. & Idárraga*







Construction of the greenhouse in the botanical garden “Eloy Valenzuela” to continue the propagation of *Zamia* species







# GRACIAS

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