

## Project Update: February 2024

**February 2023** - We begin with the care and maintenance of orchids under suitable conditions for their growth and flowering during the season. For this purpose, we prepare a sufficient space and provide them with the necessary nutrients. The orchid for the experiment: *Gongora galeata*.



**March and April 2023** - Reconnaissance visits to the 14 sampling sites. We conducted visits to the urban work areas, where we requested permission from the residents to monitor euglossine bees. For urban parks, we approached the relevant government institutions to obtain monitoring permits.

**May 2023** - We sought people interested in collaborating with the project, primarily undergraduate students who wanted to learn and had the necessary time. To do this, we conducted the workshop "Orchid Bees of Mexico and Veracruz" organized at the Institute of Ecology A.C. We provided training to 10 persons interested in the project. We also created illustrated field guides to identify the most common species and had a field trip to standardize capture, marking, and recapture methods. For the finish of the course, we had a orchid bees preliminary field monitoring.

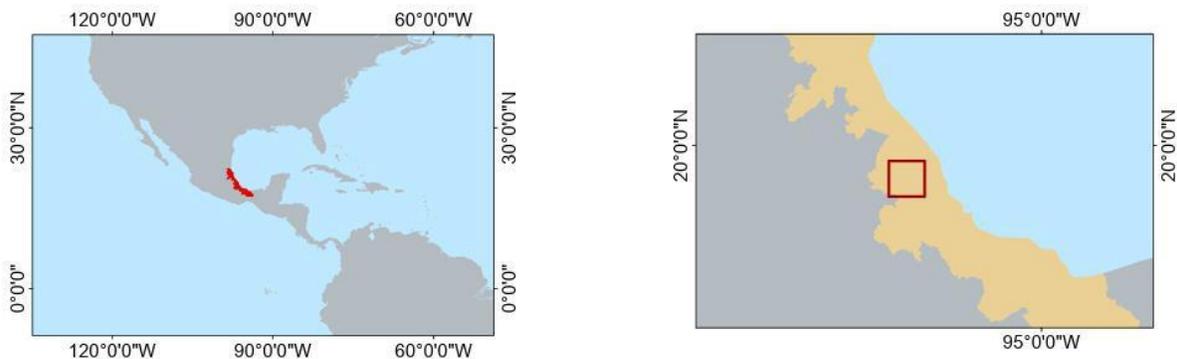
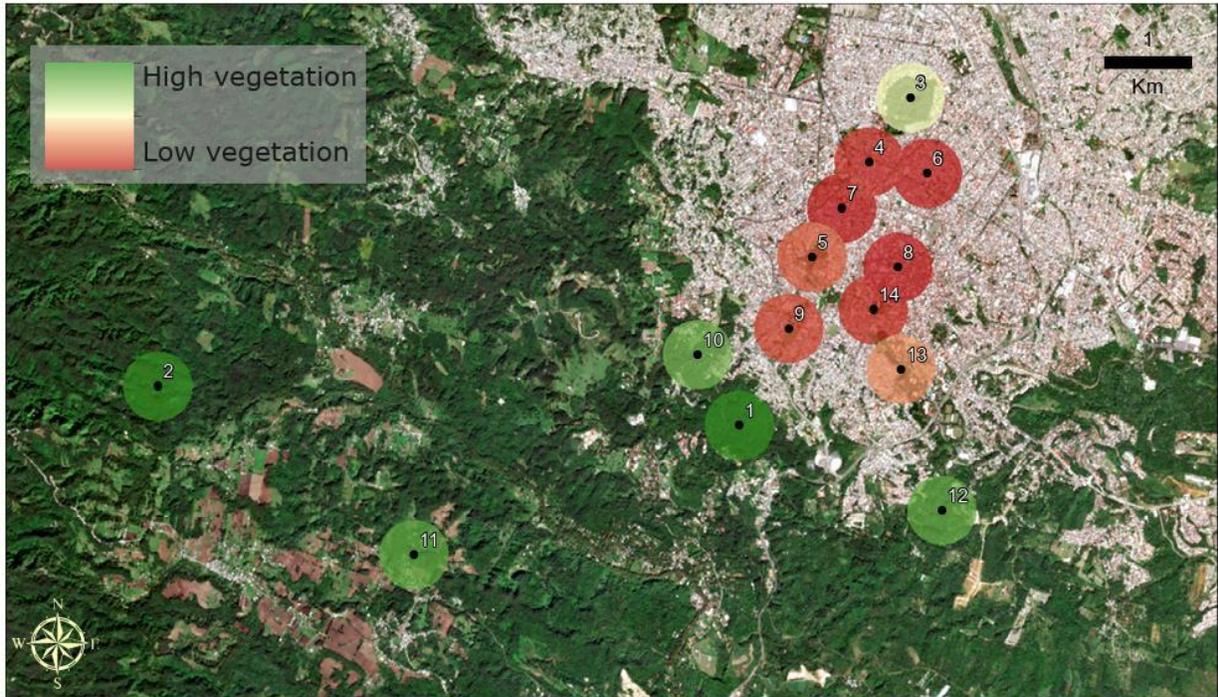


Ilustración 1. Map of the sampling zones.





**June, July, and August 2023** - Monitoring of orchid bees. After assembling the working team with individuals who displayed the best qualifications, we visited 14 sites along an urbanization gradient in the city of Xalapa, Veracruz, Mexico. There, we captured, marked, and released orchid bees. We recorded 965 captures, 7 recaptures, and identified 16 species. This provides us with extremely valuable information about bee populations and allows us to assess the impact of urbanization on these communities. It also allowed us to collaborate with the project team, who over time, acquired new skills and interests. This was highly beneficial, as several biologists in training may potentially work with this study group in the future.



Álvaro  
Hernández-  
Rivera

Karla Paola  
Flores Vázquez

Oriana Gómez  
Luna

Lot Sinuhe  
Pérez Ortega

Kevin Ramírez  
Rodríguez

**September 2023** - We transported experimental orchids to the sampling sites to assess pollination along the gradient. We counted the number of flowers on each experimental plant upon placement, and after a week, we collected and evaluated how many flowers had been pollinated. In urban sites, we placed the orchids in parks and home gardens, allowing us to engage with people from those areas. This enabled us to explain our project and ensure they understood its objectives. Overall, we received a warm welcome, and we visited these places on multiple occasions, providing us with the opportunity to connect with the community repeatedly.



Placement of orchids at sampling sites.

**November 2023** - We are organize a photographic exhibition in the big event named "Casa Abierta", held at the Institute of Ecology A.C. It take place on November 11th at the Ecology Institute. "This activity was highly significant and impactful, reaching over 4,000 individuals. We printed, prepared, and installed all the materials for our exhibition, including educational infographics. We engaged with at least 600 visitors, providing them with a 15-minute explanation about orchid bees and their importance in the ecosystem, particularly for orchids. This event was truly rewarding, witnessing the public's genuine interest. Attendees included children, youth, and adults intrigued by the topic."



Ilustración 2. Alvaro Hernandez-Rivera carrying *Gongora galeata* orchids for experiment.



*Ilustración 3. Our team*



Ilustración 4. Photo exhibition.



Children learning about orchid bees, orchids and their interactions.



The project team after a full day of discussing orchid bees. The Rufford Foundation logo is visible on our banner, and we are truly grateful for their support. We hope to continue working with this team and establish a solid foundation for initiating orchid bee conservation efforts in the country.

We conclude with some infographics created for our exhibition. The first one depicts the placement of orchid pollinia on bees, with each orchid genus depositing pollen in a different area. The last image serves as the cover and emblem of the photographic exhibition.



Tan solo alrededor del 1% de abejas colectadas portan polen de orquídea.

“CADA ESPECIE DE ORQUÍDEA COLOCA SU POLINARIO EN UN LUGAR PRECISO DEL CUERPO DE LA ABEJA Y PUEDEN HACERLO HASTA EN 13 SITIOS DIFERENTES”.

- Dressler.

# “Abejas de las Orquídeas”

EXPOSICIÓN FOTOGRÁFICA