

Project Update: June 2017

We are monitoring the floral visitors through focal observations and video camera, and conducting the organisation of the data in the laboratory. Data collection has been conducted and for now everything goes well and with good data volume.

With the data that we already have we made a brief presentation of the data publicly.



Pictures in the field: Observing floral visitors and collecting data on plant species and their flowers

Below preliminary data presented in the event Ecology and Evolution of Plant Reproduction on April 24th and 25th 2017 at UFMS in Campo Grande, Brazil.

Pollination network in the Southern Pantanal: predicting modules through the vegetative mosaic

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Pantanal includes a mosaic of vegetation types and is subjected to seasonal flooding periods. In this study we asked if patterns of interactions between species vary across different plant formations ("paratudal", canjiqueiral" and ciliar forest) in Southern Pantanal. The network comprised 99 plants and 75 pollinators' species and was significantly modular ($M=0.54$, $p<0.05$; 11 modules). Module conformation indicated some specialized subunits such as oil-producing plants and oil-collecting bees; ornithophilous flowers and hummingbirds, and large bees that pollinate melitophilous specialized flowers. *Apis mellifera* acted as a network hub, connecting distinct modules in the network as well as being important within its own module. Other native bees such as *Bombus morio*, *Augochloropsis* sp., *Trigona* sp. also played important roles in the network. Among the plants, those that characterized the monodominant plant formations (*Tabebuia aurea* and *Byrsonima cydoniifolia*) and those that were abundant (*Melochia simplex*, *Ludwigia elegans*) acted as modules connectors. An exotic bee species acting as the most important hub suggests that natural characteristics on the network were probably drastically modified. However, the presence of specialized modules indicates that many of the specialized interactions are robust to the introduction of alien species.

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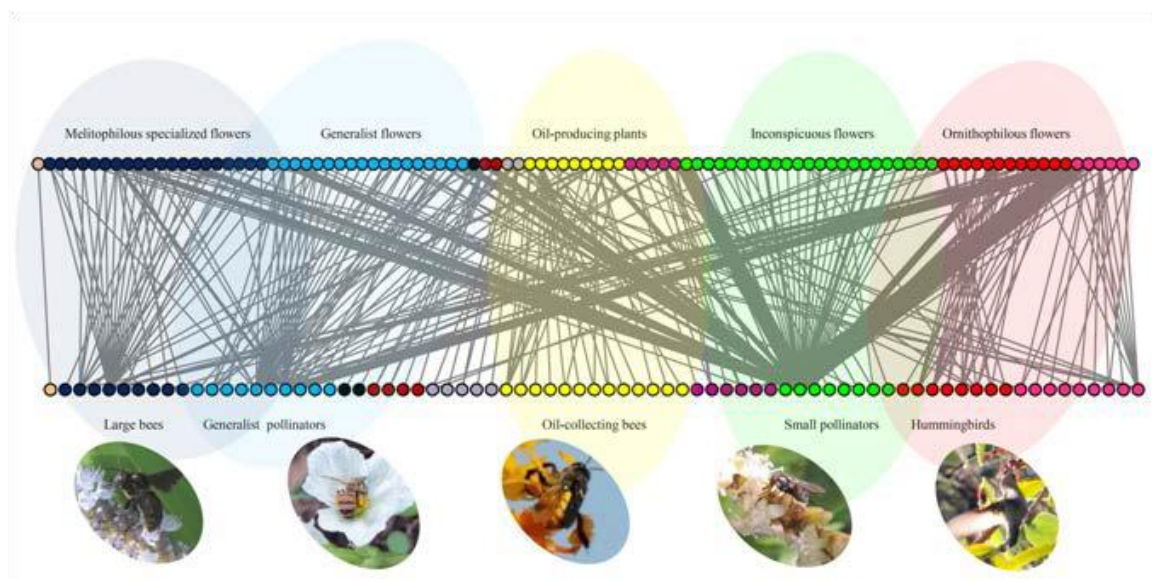


Figure showing the network of interactions between plants and pollinators in Pantanal Wetland environments.



Figures from oral presentation of this research

Certificate



CERTIFICATE

We certify that **Camila Silveira de Souza** presented a talk entitled "Pollination network in the southern Pantanal: predicting modules through the vegetative mosaic", authored by **CS Souza¹, PK Maruyama², CLGross³, AC Araujo¹**, at the Symposium on Ecology and Evolution of Plant Reproduction held in Campo Grande, Mato Grosso do Sul, Brazil, between 24-25 April, 2017.

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