

SYMPOSIUM 25: THE ECOLOGY AND EVOLUTION OF PLANT DEFENSES

Bonito, 22nd June 2012 (Friday)

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Considerable attention has been paid to the ecology and evolution of plant defensive traits and how these defenses interact with animal herbivores. Tropical biology has been key to the development of theoretical advances and empirical investigations in this field, with a majority of the world's biodiversity composed of tropical plants and their herbivores. In this symposium we highlight innovative perspectives in current research in the study of tropical plant-herbivore interactions. In particular, we hope to highlight ecological and evolutionary aspects of defensive traits, especially the consequences of coevolutionary interactions on plants and animals at both macro and micro evolutionary scales, for both interacting species as well as in the community context. The variation in the spatial and temporal scales of animal-plant interactions is explored among the speakers in order to connect ideas that expand on the theme, with the expectation to bring out new hypotheses and approaches to be tested in tropical systems in the future.

TALKS (Tereza Room, 09h00-15h30)

09h00-09h15 (S25.CO.01) **Extrafloral nectaries as biotic defense in plant-insect interaction networks.** *Cecilia Díaz Castelazo*

09h15-09h30 (S25.CO.02) **The influence of extrafloral nectaries on the structure of Cerrado arboreal ant community.** *Flávio Camarota*

09h30-09h45 (S25.CO.03) **Evolution of extrafloral nectaries and ant-plant interactions in Neotropical lianas.** *Anselmo Nogueira*

09h45-10h00 (S25.CO.04) **Patterns of host plant use by lepidopterans in the cerrado savanna: effects from foliage-dwelling ants.** *Sebastian Felipe Sendoya Echeverry*

10h00-10h15 (S25.CO.05) **A mutualistic community of ants, plant and fungi: how a third partner affects plant biotic protection by ants.** *Jéremie Lauth*

10h15-10h30 (S25.CO.06) **Temporal variation in the abundance and richness of foliage-dwelling ants in the Cerrado savanna: extrafloral nectar as a mediating factor.** *Ceres Belchior*

Coffee Break

11h00-11h15 (S25.CO.07) **Ecological interactions of a multitrophic association in the Brazilian savanna: floral buds, beetles and wasps.** *Helena Maura Torezan Silingardi*

11h15-11h30 (S25.CO.08) **Soil quality and herbivory influence on the performance of the shrub *Solanum sisymbriifolium* (Solanaceae).** *Flávia Nogueira de Sá*

11h30-11h45 (S25.CO.09) **Synchrony of leaf production as a strategy to escape herbivory in tropical forests.** *Greg Lamarre*

11h45-12h00 (S25.CO.10) **Structural defenses against large mammal herbivores in southern African woody plants.** *William Bond*

12h00-12h15 (S25.CO.11) **Ontogenetic switches in plant defense.** *Karina Boege*

12h15-12h30 (S25.OC.12) **Effects of global environmental change on above and below-ground plant-herbivore interactions: a meta-analysis of experimental studies.** *Fabiane M. Mundim*

Lunch

14h00-14h15 (S25.OC.13) **Host plant extinctions and insect herbivore coextinctions in a tropical elevational gradient.** *Carlos Garcia-Robledo*

14h15-14h30 (S25.OC.14) **PacBio sequencing of plant-insect interactions: how does secondary chemistry influence host-use among the herbivores of congeneric plants?** *Brian Sedio*

14h30-14h45 (S25.OC.15) **Phylogenetic and ecological determinants of plant-herbivore food webs in tropical forests.** *Vojtech Novotny*

14h45-15h00 (S25.OC.16) **The strength and diversity of plant-herbivore interactions and the evolution of ecological divergence by trees across habitat gradients in Amazonian forests.** *Paul Fine*

15h00-15h15 (S25.OC.17) **Herbivore-driven plant speciation in tropical forests, a return to Ehrlich and Raven.** *Robert Marquis*

15h15-15h30 (S25.OC.18) **Macroevolution and the diversity of plants and herbivores.** *Douglas Futuyma*

POSTERS (Karuha Space, 15h30-16h30)

S25.P.01. **Morphological and histological characterization of extrafloral nectaries and associated ants in a Mexican rain forest.** *Armando Aguirre*

S25.P.02. **Phenological variation and its impact on florivory in a Cerrado Malpighiaceae community.** *Helena Maura Torezan Silingardi*

S25.P.04. **Chemical protection and nutritional value of *Ficus pertusa* and *Cecropia pachystachya* infructescences, keystone fruit sources in the Pantanal.** *Amanda Galdi Boaretto*

S25.P.05. **Physiological response of Date Palm (*Phoenix dactylifera* L.) to red Palm Weevil (*Rhynchophorus ferrugineus* Oliver) biotic stress.** *Ahmed ALJabr*

S25.P.06. **Interaction between *Senegalia tenuifolia* (Mimosoideae) and the dominant seed predator species (Coleoptera: Bruchidae): a preliminary study.** *Lais Ferreira Maia*

S25.P.07. **Effect of simulated herbivory in the survival and growth of *Actinocephalus polyanthus* (Eriocaulaceae), a sand dune monocarpic species.** *Richard Tito Leon*

S25.P.08. **Edge effects alter plant-herbivore network structure.** *Bruno Pinho*

S25.P.09. The nest density effect and the body size importance for ant-plant interactions.

Jarbas Marçal de Queiroz

S25.P.010. Leaf herbivore by leaf-cutting ants reduce female reproductive traits of *Miconia nervosa* (Sw.) Triana (Melastomataceae). *Talita Câmara*

S25.P.011. Influence of extrafloral nectar and seasonality on the structure of ant-plant interaction networks in a neotropical savanna. *Ceres Belchior*

S25.P.012. Reduction of extrafloral nectary-bearing plants in a severely fragmented Atlantic forest landscape. *Talita Câmara*

S25.P.013. Insect herbivores responses to plant characteristics in *Psychotria suterella* Müll. Arg. (Rubiaceae). *Juliana Tuller*

S25.P.014. Herbivory in *Gomidesia palustris* (Myrtaceae) in two formations of Restinga, southern Brazil. *Richard Tito Leon*