

SYMPOSIUM 22: NETWORK ANALYSIS IN POLLINATION AND OTHER MUTUALISTIC SYSTEMS

Bonito, 21st June 2012 (Thursday)

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The use of network theory in ecology has been fundamental to study entire communities of interacting species. The majority of species interact with a diverse array of mutualistic partners across space and time. However, the spatio-temporal variation in plant-pollinator networks, and associated ecological and evolutionary consequences, has received little attention and is still poorly understood. Moreover, species diversity and interactions are highly complex, varying on a landscape scale, and are sensitive to landscape alterations, such as fragmentation and habitat degradation. For instance, it is widely known that disturbed areas suffer from the loss of species and loss of functional processes such as mutualistic interactions. Interestingly, several structural properties of ecological interaction networks have been argued to confer robustness against perturbations such as species extinctions and habitat loss. Thus, understanding how the mutualistic relationship among plants and pollinators is shaped during the successional process, may give valuable insight into restoration actions. In this sense, the proposed symposium aims to discuss the latest studies on mutualistic networks, with special focus on spatio-temporal variation of plant-pollinator networks. The talks which form this symposium will start by covering the evolutionary and ecological drivers which determine the structural patterns in ecological networks (talk 1), then will present different aspects of spatio-temporal variability (talks 2-6) and of different stages of restoration (talks 7-9) in plant-pollinator network structure which will help us to identify the main drivers of change in network structure, and will conclude the symposium presenting different patterns in mutualistic network compartmentalization and discussing the effects of human disturbance and fragmentation on mutualistic networks (talks 10-12).

TALKS (Room Guaicurus, 14h00-18h00)

14h00-14h15 (S22.OC.01) **Evolution of ecological networks.** *Carlos Roberto Fonseca*

14h15-14h30 (S22.OC.02) **Geographic patterns in plant-hummingbird networks.** *Bo Dalsgaard*

14h30-14h45 (S22.OC.03) **Spatio-temporal dynamics in plant-pollinator interaction networks.** *Daniel Carstensen*

14h45-15h00 (S22.OC.04) **Plant-pollinator network interactions of four sympatric species of *Psychotria L.* (Rubiaceae).** *Edivani Franceschinelli*

15h00-15h15 (S22.OC.05) **Nested bird-flower networks: comparing different approaches.** *Márcia Alexandra Rocca*

15h15-15h30 (S22.OC.06) **Plant-pollinator networks in two Cerrado physiognomies.** *Andréa Cardoso de Araujo*

Coffee Break

16h30-16h45 (S22.OC.07) **Spatial variation in plant-pollinator networks.** *Anders Nielsen*

16h45-17h00 (S22.OC.08) **The restoration of pollination networks in Atlantic forest.** *Isabela Galarda Varassin*

17h00-17h15 (S22.OC.09) **Restoration of plant-pollinator networks.** *Mariano Devoto*

17h15-17h30 (S22.OC.10) **Plant-pollinator networks and fragmented landscapes: does plants' breeding system matter?** *Julia Astegiano*

17h30-17h45 (S22.OC.11) **Does the modularity of mutualistic networks depend on the degree of interaction intimacy between interacting species?** *Esther Sebastián González*

17h45-18h00 (S22.OC.12) **Species roles in plant-frugivore networks in the Atlantic Rainforest and their sensitivity to human disturbances.** *Mariana Morais Vidal*

POSTERS (Karuha Space, 15h30-16h30)

S22.P.01. **Interaction networks plants and hummingbirds in cerrados areas of the Triângulo Mineiro and region.** *Adriana Oliveira Machado*

S22.P.03. **Maximizing forest restoration using network analysis of seed dispersal.** *Fernanda Ribeiro da Silva*

S22.P.04. **Exotic bee is one of the most generalist bee species on Brazilian bee-plant interaction networks.** *Tereza Giannini*

S22.P.05. **The effect of trait matching in hummingbird-plant interaction networks.** *Raquel Oliveira Bueno*