

June 23-27, 2013

50TH ANNIVERSARY MEETING

ASSOCIATION FOR TROPICAL BIOLOGY AND CONSERVATION
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S22-3
Pollination systems of woody trees in the brazilian Amazon rainforestWednesday, 26 June 2013: 08:30
La Paz - B West (Herradura San Jose)**Marcia Motta Maues**, Laboratório de Entomologia, Empresa Brasileira de Pesquisa Agropecuária, Brazil
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Pollination studies at the Amazon canopy are relatively scarce due to the logistic difficulties of reaching the tree top. We studied the pollination systems of key woody trees, in natural and cultivated areas, in Central and Eastern Amazon, Brazil. The flower visitors of *Jacaranda copaia* (Aubl.) D. Don (Bignoniaceae), *Dipteryx odorata* (Aubl.) Willd. (Leg. Papilionoideae), *Manilkara huberi* (Ducke) A. Chev. (Sapotaceae), *Carapa guianensis* Aubl. (Meliaceae) and *Bertholletia excelsa* Bonpl. (Lecythidaceae) were assessed directly on opened flowers at the main flowering period. Reproductive system was also assessed by controlled pollination tests. The studies were carried out from 2003 to 2012. *B. excelsa* was pollinated by large-bodied bees such as *Xylocopa*, *Bombus*, *Eulaema*, *Eufriesea* and *Epicharis*; *J. copaia* was effectively pollinated by a restrict number of medium-bodied bees, namely *Euglossa* and *Centris*. Likewise, *C. guianensis*' pollinators were unspecific small-sized bees, mainly Meliponina and small riodinid butterflies. Thus, these two species showed higher specialization in comparison to *D. odorata*, which was pollinated by medium to large-bodied bees (*Eulaema*, *Eufriesea*, *Centris*, *Bombus*, *Epicharis*, *Xylocopa*, *Augochloropsis*, Meliponina) plus butterflies, moths, scarab beetles, wasps and hummingbirds. Equally, *M. huberi* showed a wide group of pollinators, represented by Meliponina, Anthophorina, hoverflies, butterflies, moths, wasps and perching birds. Flower morphology, pollen/nectar accessibility and attractants were significant features on the floral visitor's preference. The dry season (September to November) concentrated the majority of flowering season. The analysis of controlled pollination tests revealed that all the species are mainly allogamous, thus dependent on pollinators to mediate pollen transfer among individual plants. Three major SI systems were recorded: LSI in *J. copaia* and *D. odorata*, and, apparently, SSI in *C. guianensis*; and GSI in *M. huberi* and *B. excelsa*.

See more of: [Frontiers in Plant-Pollinator Interactions and Breeding System Evolution in the Tropics](#)
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