

**SYMPOSIUM 29: HUMAN DISTURBANCES AND NOVEL ECOSYSTEMS:  
PROSPECTS FOR TROPICAL BIODIVERSITY AND ECOLOGICAL SERVICES**

**Bonito, 29<sup>th</sup> June 2012 (Tuesday)**

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Tropical forest landscapes are subjected to unprecedented rates of human-induced environmental changes resulting in the proliferation of highly-modified species assemblages and ecosystems. Such novel ecosystems have emerged in response to biological invasion, proliferation of native species, species loss due to habitat fragmentation and species overexploitation, among other forces. In fact, novel ecosystems may be the predominant habitat across tropical regions even in the presence of net forest gain (i.e. forest transition). This perspective poses many questions relative to long-term persistence of tropical biodiversity and provision of ecological services in human-modified landscapes. While much has been elucidated about species loss and biological invasion in human-modified landscapes, the ultimate nature of novel ecosystems, as well as the threats and opportunities they represent remain obscure. In a nutshell key issues are: (1) the novel ecosystem concept: scope and relevance; (2) the forces driving the emergence of highly modified assemblages and altered ecosystems; (3) novel ecosystem: eradication, control or valorization; and (4) threats versus opportunities for native biodiversity and ecosystems services in human-modified landscapes. The symposium is offered as a cross section of researchers addressing these questions from various perspectives to develop new theoretical and applied insights required for a better understanding of the successional trajectory experienced by tropical ecosystems in human-modified landscapes and the future of tropical biodiversity.

**TALKS (Room Karuha, 14h00-18h00)**

**14h00-14h15 (S29.OC.01)** Human disturbances and novel ecosystems: prospect for tropical biodiversity and ecological services. *Marcelo Tabarelli*

**14h15-14h30 (S01.P.06)** **Bird functional diversity and ecosystem services in tropical forests, agroforests, and agricultural areas.** *Cagan Sekercioglu*

**14h30-14h45 (S29.OC.03)** **Do novel forests have similar functioning to native secondary forests?** *Jéssica Fonseca da Silva*

**14h45-15h00 (S29.OC.04)** Prospects for modified forest ecosystems: selectively logged forests - and not secondary forests - sustain high levels of tropical biodiversity. *Luke Gibson*

**15h00-15h15 (S29.OC.05)** **Effects of road paving and land tenure on forest value in the tri-national frontier region of southwestern Amazonia.** *Christopher Baraloto*

**15h15-15h30 (S29.OC.06)** Maintenance of tree species diversity in a strongly fragmented rainforest. *Victor Arroyo-Rodríguez*

*Coffee Break*

**16h30-16h45 (S29.OC.07)** **Conserving biodiversity in secondary tropical forests: constraints and possibilities.** *Miguel Martinez-Ramos*

**16h45-17h00 (S29.OC.08)** Old and novel ecosystems in the southern Brazilian grassland biome.  
*Valério Pilar*

**17h00-17h15 (S29.OC.09)** Can a single herbivore species make a difference? Leaf-cutting ants as promoters of novel neotropical forests. *Rainer Wirth*

**17h15-17h30 (S29.OC.10)** Interactive effects of anthropogenic disturbance and invasion: fire, invasive ants and native ant diversity in New Caledonia. *Alan Andersen*

**17h30-17h45 (S29.OC.11)** Effects of habitat fragmentation on avian disease and vector communities in tropical rainforests. *Susan Laurance*

**17h45-18h00 (S29.OC.12)** Ecological restoration efforts to mitigate biotic homogenization in human-modified tropical landscapes. *Pedro Henrique Santin Brancalion*

### **POSTERS (Karuha Room, 15h30-16h30)**

**S29.P.02. Phytoremediation and biomonitoring of water contaminated by chromium: symptoms and internal morphology evaluation of *Polygonum punctatum* Elliot.**  
*Andréa Rodrigues Marques Guimarães*

**S29.P.03. Patch area and micro-topography importance for microclimatic expressivity of small fragments at fragmented Atlantic rainforest landscape.** *Marcos Mendes*

**S29.P.04. Plant species diversity and the desertification process at Caatinga northeast Brazil.** *Guilherme Mazzochini*

**S29.P.05. Percentage of impervious surface soil as indicator of urbanization impacts in Neotropical streams.** *Fabio Nasimento Oliveira Fogaça*

**S29.P.06. Higher litter species richness does not enhances litter decomposition.** *Dalana Muscardi*

**S29.P.07. The use of biodegradable geotextile in degraded areas: assessment of the seeds and fiber characteristics for application.** *Andréa Rodrigues Marques Guimarães*

**S29.P.08. Effect of Amazon Dark Earth on the composition, diversity and density of herbs, ferns, and palms on an amazonian forest in Bolivia.** *Estela Quintero-Vallejo*

**S29.P.09. Effects of human disturbance on seasonally dry tropical forests.** *José Domingos Ribeiro Neto*

**S29.P.10. Abundance and richness of tomato pollinators in different landscape contexts.** *Edivani Franceschinelli*

**S29.P.11. Land use and the recovery of a Caatinga tropical dry forest: from plant species composition to assemblage functional diversity.** *Marcelo Tabarelli*

**S29.P.12. Patch attributes and the functional profile of tree assemblages in a fragmented landscape of Atlantic forest.** *Marcos Mendes*

**S29.P.13. Mesuring the rarity of tree species of Myrtaceae in Santa Catarina.** *Tiana Custodio*

**S29.P.14. Biometry, foliar and root anatomy of *Aspilia grazielae* Santos from mined and preserved areas of Urucum Complex, Corumbá, MS, Brasil.** *Alexandra Penedo de Pinho*

- S29.P.15. **Evaluation of seed bank favoring the natural regeneration of mined areas in Corumbá, Mato Grosso do Sul, Brasil.** *Alexandra Penedo de Pinho*
- S29.P.16. **Silvicultural potential for the management of secondary forests in the Bajo Calima (Colombian Chocó).** *Omar Melo*
- S29.P.17. **Information about invasive alien plants in Brazil: a nonrestrictive revision on academic works.** *Jézili Dias*
- S29.P.18. **Human disturbances and the proliferation of plant diseases: Part II.** *Julieta Benitez-Malvido*
- S29.P.19. **Impact of human pressure on cacti populations from Brazilian Caatinga.** *Elaine Ribeiro*
- S29.P.20. **Pre-Colombian human transformation of forest landscapes of the Purus-Madeira interfluvio, Central Amazonia.** *Carolina Levis*
- S29.P.21. **Anthropogenic disturbance do not influence seed protection in nests of a keystone mutualist ant in the Caatinga vegetation.** *Gabriela Burle Arcoverde*
- S29.P.23. **Anthropogenic actions decrease amphibian populations.** *Lilian Franco-Belussi*
- S29.P.24. **Ecological, evolutionary and anthropogenic determinants of the distribution of threatened amphibians in the Western Hemisphere ecoregions.** *Fernanda Thiesen Brum*
- S29.P.25. **Human-managed savanna woodlands can contribute to biodiversity conservation and human well-being in the Western Ghats.** *Lisa Mandle*