Conservation News

Building bridges for threatened primates in the Arc of Deforestation

The municipality of Alta Floresta in the state of Mato Grosso in the Brazilian Amazon is home to > 600 bird and 98 mammal species, including the rare Grove's titi monkey *Plecturocebus grovesi*, also known as the Alta Floresta titi. The municipality lies within the Arc of Deforestation, where urban expansion and road construction have resulted in the isolation of forest in patches.

Of the 12 primate species in Alta Floresta, six are common in urban areas (the Critically Endangered *P. grovesi,* Endangered *Ateles chamek* and *Mico schneideri,* Vulnerable *Alouatta puruensis* and *Alouatta discolor* and Least Concern *Sapajus apella*), where they face habitat fragmentation, collisions with vehicles and electrocution from power grid lines, with disproportional effects on strictly arboreal species such as *P. grovesi, A. puruensis*, *A. discolor* and *A. chamek*. In October 2024, our Reconecta Project, in partnership with Alta Floresta's city hall, local universities, NGOs, private companies and landowners, launched the Alta Floresta Não Atropela (Alta Floresta Without Roadkill) programme. We installed seven artificial canopy bridges to provide safe road crossings for arboreal species, and monitored the bridges with camera traps. To increase driver awareness, we placed a wildlife crossing sign next to each bridge, and we carried out school-led education campaigns engaging > 1,200 children and the wider community.

During October 2024–January 2025, our camera traps captured 540 bridge crossings by arboreal mammals. The black-capped capuchin *S. apella* was the first species to use a bridge, crossing just 2 days after installation. Other species included *M. schneideri* and various rodent and marsupial species. The canopy bridges are designed to be sturdy and safe, constructed from durable, readily available materials such as concrete poles, steel cables, ropes and nylon mesh. We are developing a guidance document, based on our design, for DNIT (Departamento Nacional de Infraestructura de Transportes), Brazil's Federal Transportation Agency, to support implementation on federal highways.

The second phase will begin in June 2025, with six additional canopy bridges planned in areas near power lines. The local power company will insulate the lines to mitigate risk of electrocution, and wildlife underpasses, complete with fencing and signage, will be installed to reduce vehicle collisions with terrestrial species.

Top: an artificial canopy bridge under construction in Alta Floresta. Bottom: a black-capped capuchin *Sapajus apella* female with her juvenile crossing the completed canopy bridge. Photos: National Zoo Conservation Biology Institute.

Fernanda D. Abra[1,2] *(abraf@si.edu), Luan G.A. Goebel*[3], *Tremaine Gregory*[1,4], *Maelle L. de Freitas*[3], *Gustavo Canale*[5], *Juliana A. Martins*[6] *and Alfonso Alonso*[1]

[1]*Center for Conservation and Sustainability, Smithsonian's National Zoo and Conservation Biology Institute, Washington, DC, USA.* [2]*ViaFAUNA Estudos Ambientais, São Paulo, Brazil.* [3]*Programa de Pós-graduação stricto sensu em Ciências Ambientais, Universidade do Estado de Mato Grosso, Cáceres, Brazil.* [4]*World Wildlife Fund, Washington, DC, USA.* [5]*Instituto de Ciências Naturais, Humanas e Sociais, Universidade Federal de Mato Grosso, Sinop, Brazil.* [6]*Centre for Environmental Policy, Imperial College London, London, UK*