

Indigenous territorial management protects wildlife habitats

A wildlife species occupancy study, carried out over an area of 865 km², established important baseline data along the San Buenaventura-lxiamas road, where the Madidi National Park meets with Tacana indigenous territory. The presence, distribution and occupancy of mammals, will now be used to monitor the effects of road infrastructure improvements and identify, verify, and position wildlife habitat corridors.

The species with the greatest occupancy values were the agouti (Dasyprocta spp.), paca (Cuniculus paca), red brocket deer (Mazama americana), collared peccary (Pecari tajacu), tapir (Tapirus terrestris), crab-eating racoon (Procyon cancrivorous), and small felines (Leopardus spp.). White-lipped peccary (Tayassu pecari) and jaguar (Panthera onca) had lower occupancy values.

Close to rivers and streams the occupancy values increased for the jaguar, tapir, paca, racoon and small felines, reflecting these species' affinity to humid habitats. The red brocket and agouti were more common in secondary forests where tender leaf forage is more readily available.



Mileniusz Spanowicz/WCS

Occupancy values of most species fell markedly closer to urban populations. This is attributed to higher hunting rates, forest fragmentation, and habitat destruction caused by human population growth over the last thirty years. This is particularly true for the jaguar, white-lipped peccary, collared peccary, and lowland tapir.

Data collected by WCS between 2001 and 2014 in the Tuichi and Hondo valleys within the Madidi Protected Area show a wildlife recovery for tapir, jaguar, and white-lipped peccary. This result highlights the importance of maintaining wildlife corridors between the two areas (Madidi and the Tacana indigenous territory) to promote the conservation of charismatic and threatened species, as well as ensuring the food security and cultural values of the Tacana people.





INDIGENOUS TERRITORIAL MANAGEMEI



Julie Larsen/WCS

The identification of priority wildlife corridors

The wildlife occupancy study carried out along the San Buenaventuralxiamas road enabled the identification of wildlife corridors that connect Madidi National Park with the Tacana Indigenous Territory and supports observations made by the Tacana communities in questionnaires applied in 2001, 2005, and 2013. The corridors are concentrated in areas close to Tacana communities rather than private or migrant agricultural areas. Of the 28 corridors identified, five were prioritized. These were close to San Buenaventura, Tumupasa, and lxiamas and characterized by creeks that straddle the road. These corridors assure the dispersal of wildlife, especially that of charismatic and threatened species, and are vital to mitigate the environmental impact of road development.

Biological corridors are areas that connect landscapes, ecosystems and habitats that help reduce land fragmentation and preserve biological diversity. Corridors provide food and shelter and help the movement and dispersion of wildlife. This is important for species such as the jaguar and the white-lipped peccary that use a variety of habitats in different ecosystems, from piedmont forests to the forest-savanna of the Amazon basin.

With climate change also come changes in ecosystems that force wildlife to migrate to new places to survive. Corridors can provide a path to those new places and preserve ecological processes. In addition, corridors ensure the genetic sustainability of wildlife populations that otherwise would remain isolated and threatened with extinction.

The Madidi National Park helps to mitigate the effects of climate change by ensuring the ecological equilibrium of ecosystems and by preserving habitats and wildlife. Tacana communities also benefit from the preservation of healthy wildlife populations. Thanks to the biological corridors, wildlife can move across landscapes and ensure that the Tacana communities have a more secure source of protein. The Tacana people also have a role to play. Effective territorial management ensures forest and habitat conservation, including the preservation of water sources originating from the foothills of the Andes.

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WILDLIFE POPULATIONS

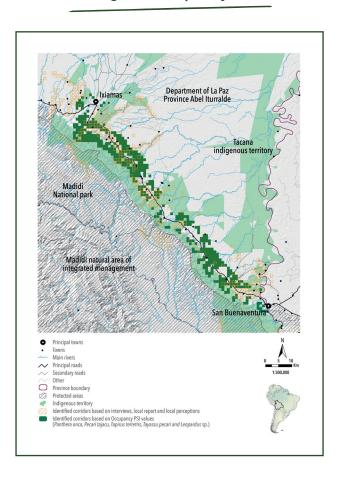
The Tacana indigenous territory is crucial for the preservation of threatened wildlife, including the giant otter, jaguar, and black caiman. The connectivity between the Tacana territory and the Madidi National Park facilitates the conservation and movement of wildlife. Studies have revealed important occupancy values of traditionally hunted species such as the lowland tapir, collared peccary, and agouti. Those values affirm the healthy state of forest conservation in the Tacana territory.

The importance of indigenous territories for biodiversity conservation

- Indigenous territories help maintain key wildlife species populations and contribute to biodiversity conservation and food security for communities.
- The management of the Tacana territory preserves forest coverage and wildlife habitat and contributes to the mitigation of the effects of climate change.
- Biological corridors connecting the Tacana indigenous territory and the Madidi National Park protect zones of high ecological fragility.
- Wildlife is able to disperse and move to find food and reproduce.
- Ecological processes and connectivity between ecosystems are safeguarded, ensuring that the Madidi Protected Area is not isolated from the surrounding landscape.

THE PRESENCE OF WILDLIFE IS A REFLECTION OF THE CONSERVATION STATUS OF FORESTS AND BIODIVERSITY

Habitat corridors and species with higher occupancy values



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