

Presentation Information

Presenter	Jose Manuel Fragoso
Title	Are Vertebrate Abundance Patterns in the Amazon a Reflection of the Cultural Practices of Indigenous Peoples?
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Abstract:

The 300 to 500 million indigenous people of the world represent 5000 distinct ethnic groups and occupy 20% of the world's land surface. In the Amazon Basin of South America, indigenous people control at least 44 % of government-held lands. In the Amazon region of Brazil about 21% of the area consists of indigenous territories (approximately 1.1 million km²). The three continental scale biological corridors identified for the region overlap extensively with indigenous lands. Based on documented levels of biological diversity in Amazonia, these lands support a high proportion of the world's biodiversity. There is strong evidence, however, that once indigenous peoples in the Amazon become sedentary and integrate themselves to national socio-economic systems, they exert unsustainable pressure on natural resources and especially on vertebrate game animals. Such overexploitation appears to be a consequence of complex interactions between indigenous resource-use practices, a growing population, adoption of new technologies, and direct and indirect influences from the surrounding non-indigenous landscape (roads, cities, markets, wage employment, agribusiness, etc.). Humans have been hunting vertebrate species for millennia. Humans throughout the tropics still depend on wild animals for much if not most of their meat. These animals also form part of complex spiritual systems that mediate human interactions with other vertebrate species. Non-human vertebrate abundance and diversity patterns may thus reflect human use patterns and spiritual belief systems if the human-non-human systems are tightly linked. One could then hypothesize that a change in one component of this system should lead to a response by the other. I describe patterns of vertebrate biodiversity and abundance for the North Rupununi region of Guyana, South America and relate this to cultural practices of indigenous peoples over an approximately 3000 km sq. area, and consider the implications of our results for other tropical areas.