Indigenous Land Use and Hunting Sustainability in the BOSAWAS Biosphere Reserve Nicaragua
BOSAWAS Biosphere Reserve

• Largest (~8,000 km$^2$) tract of rain forest north of Amazonia
• Population: 13,000
  – Mayangna (~1,200 ybp) along smaller tributaries
  – Miskito (~120 ybp) along Rio Coco
• Six territories + conflict zone
• Designated as Parks in Peril by TNC
• Key to MesoAmerican corridor
Figure 2. Ethnic mosaic of indigenous cultures in the Atlantic coast of Nicaragua. A. circa 1500; B. circa 1800 (Offen 2000).

Miskito expansion as a result of interaction (“openness”) with the British.
• Five of the country’s largest rivers
• There are no roads
• All transportation in canoes
• Miskitos live along Coco river
• Mayangna inside the reserve along small tributaries
• Because is so inaccessible the biodiversity is extremely high
• Illegal mahogany harvesting and poaching
BOSAWAS’ Birds
BOSAWAS’ Bats
Land Use Zones in the BOSAWAS Biosphere Reserve, Nicaragua

Leyenda

- Limite Territorio

Zonas de Uso

- Cacería y recolección infrecuente
- Agrícola
- Área de conflicto
- Cacería y recolección frecuente
- Conservación
- Guismería
- Protección de canos y manantiales
Objectives

• Do the groups reflect their “openness” to western influences in their biocultural-biodiversity coupling?
  – Does the historical land use map reflects the current hunting practices?
  – Are the current hunting practices and intensities sustainable?
Hunting Localities in the Mayangna Suani Bu Territory
Hunting in BOSAWAS
Hunting in Mayangna Suani Bu Territory for 2002-2003

• 191 of 261 hunting localities were registered in designated agriculture land use zone.
• 70 of 261 localities were registered in the hunting land use zone.
• 82% of kills took place in designated agriculture areas.
Conclusions

• Most hunting (>80%) treks took place in agricultural land use zones. None was observed in the conservation zone.

• Most commonly hunted species appear to be well within sustainable levels.

• Two species, the tamandua (ant-eater) and Baird’s tapir, may be above sustainable points.
Figure 1. Map of Nicaragua with outline of the Bosawas Bioreserve. Dots indicate locations where vegetation was sampled by Stevens et al. (2001).