Endangered Species, Protected Areas, and Tourism in Cuba

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Abstract: Protected areas in Cuba cover a large proportion of natural ecosystems and endangered species' distribution, bringing also opportunities for ecological tourism to flourish in the country. However, tourism can have a negative impact on the conservation of endangered species and information that helps identify threats to biodiversity should be disseminated.

Keywords: Protected areas, *Polymita*, Crocodile

Introduction

By 1959, the territory of Cuba was covert by less than 14% of its original forest, and as a consequence many plant and animal species had suffered a significant reduction in their geographical distribution and populations number (CNAP 2004). A series of reforms and laws approved after the Cuban revolution such as Law 239, which aimed at preserving and enhancing the forestry resources of the country, started to change the tide in habitat loss, and significant advances in nature conservation in the years that followed had resulted in the creation of the National System of Protected Areas (SNAP) (CNAP 2004). This system is very complex given the large number of different governmental organizations involved in administration and management, and the complexities and variety of areas to protect. In fact, less than 50% of all protected areas that had been proposed to form part of SNAP are legally approved (CNAP 2009), even though a much larger proportion is actually administered by government institutions. There are different factors that affect the inclusion of an area in SNAP, such as the presence of an endemic species, unique landscape formations, or significant ecological functions. However, given the high degree of habitat fragmentation and complexity of Cuban anthropogenic landscapes, it is still difficult to cover all species or ecosystems within SNAP. As a matter of fact, GAP Analysis conducted by specialist at the National Center for Protected Areas and other research institutions in Cuba indicates that, for some faunal groups, there are still significant populations outside protected areas (CNAP 2009).

Species and populations not represented on SNAP are at risk, no question about it. But, how well protected are endangered species within this system of conservation? This small report consists on a few pictures and a video link shared to raise awareness about the threats to endangered species. Tourism has become one of the main sources of income in Cuba, and its effects on species conservation cannot be ignored. The images shared here are a remainder that conservation is a complex issue with many socio-economical edges. Aldo Leopold wrote in 1941 "I am convinced that most Americans have no idea what a decent forest looks like. The only way to tell them is to show them" (Leopold 1991). The same reasoning can be applied when we try to educate people on threats to biodiversity, we must show them.

Polymita, the most beautiful land snail in the world

Polymita is an endemic group of land snail endemic to Eastern Cuba. The 6 species composing this group had suffered extreme reduction in population size as they had been historically commercialized due to the beauty of their shells. Nowadays they continue to be sold to

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tourists, who pose the biggest threat to the species. Tourists could have a significantly positive impact in the conservation of *Polymita* snails by choosing not to buy them. The protected areas that are mainly affected by this issue are Alejandro de Humboldt National Park, nature reserve Cañon del Yumuri, and nature reserve Punta Maisi, in Guantanamo province (figures 1 and 2).

Fig. 1: *Polimita picta* kept by locals in their garden at Cañon del Yumuri nature reserve.

Fig. 2: *Polimita picta* being sold to tourists at La Farola road, Cuchillas del Toa Biosphere Reserve.

The Cuban Crocodile

Zapata Swamp National Park (Figure 3) in Western Cuba is home to an endemic species of crocodile, *Crocodylus rhombifer*. Illegal hunting is the main threat to the species as its meat is sold to restaurants around the region. Typical Cuban restaurants called Paladares" sell the meat as a delicatessen and for a price mainly tourists can afford. As legal actions are taken upon those caught hunting or selling the meat, it is the demand for it that makes the problem persist, and that demand comes mainly from tourism. The scale of this problem is not a local one and is not exclusively limited to the Cuban crocodile, but to other species of Cuban threatened animal that although consumed traditionally, are increasingly exploited along with the growth of tourism. An example of this threat can be seeing in the following video link, where 3 men show off about their several days hunt (https://www.youtube.com/watch?v=r1JVmr37g2c).

Fig. 3: Zapata Swamp National Park, home to the Cuban Crocodile and a hotspot for tourism in Cuba

The Karst ecosystems of Viñales National Park

Mountains in Sierra de los Organos range in western Cuba are particularly attractive because of their beauty and the intercalated anthropic landscapes that surround them. This mixture of human transformed ecosystems and natural areas are most famous at Viñales National

Park, one of the main touristic destinations in Cuba. Tourism is an important source of income for local people in this protected area. However, in recent years, lodging capacity has approached its limits when demands keep increasing. At the same time, a large number of tourists are being guided by locals to the karstic ecosystems where a significant number of endemic plants and animal species occur, increasing the environmental impact that such levels of activity imply (Figures 4 and 5).

Fig. 4: A pet Cuban Hutia (*Capromys pilorides*) in a local farm shown to tourist at Viñales National Park

Fig. 5: Agriculture, tourism and natural landscapes at Viñales National Park.

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