# Tapir Extinctions in the Forests beyond the Study Landscape

I visited the other main forest areas between the Rio de Contas and the Rio Paraguaçu in 2002 and 2003, and found a similar situation to that of Ituberá. All of the forests have been heavily logged and hunting pressure is chronic throughout. No one I interviewed had ever heard of tapirs in any of these areas and, although we interviewed very few people (2-4 in each region), the informants were hunters who showed good knowledge of the wildlife (i.e., details of natural history) and had lived there all or most of their lives. Deforestation for timber occurred as long ago as the early 19th century along the Rio Jequirica, but the major landscape transformation began with the spread of cacao cultivation north from Ilhéus during the late 19th century. Systematic and industrial scale logging for timber began in the 1950/60s for those areas that had not been already cleared for cattle pasture and cacao; no forests were spared. The best remaining tracts of forest are those on the high ridges of the Rio Preto and Rio Jequiriça watersheds, and those on the ridges most remote from highways BA-001 and BR-101 between Camamu and Valença.

#### **Lessons Learned**

Despite the continued existence of 100,000s of hectares of forest between the Rio de Contas and the Rio Paraguaçu in Bahia, including up to 60,000 ha in the Ituberá region and an equal amount in the upper Rio Preto watershed, these forests are not appropriate for tapirs. Habitat is not lacking - even the disturbed forests of my study landscape retain a diverse flora (>400 species of trees and lianas); wetlands, riparian forests, and secondary forests with dense herbaceous growth and saplings are abundant. Hunting, however, is rampant and while 82.5% of the wildlife community studied persists, most species survive tenuously as reduced populations of skittish animals. There are no adequately protected reserves, even on properties of landowners who claim to be protecting their forests, and this situation is not likely to change in the near future. Tapirs have no place in landscapes such as these where the culture of hunting is deeply rooted and where there is virtually no law enforcement, regardless of habitat availability. Perhaps as the only source for hope, informants say that fewer youths are interested in hunting than ever before, so maybe one day tapirs can be brought back to roam in these hills again.

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# **COLOMBIA**

Current Distribution and Conservation Status of the Colombian Lowland Tapir (Tapirus terrestris colombianus) and the Baird's or Central American Tapir (Tapirus bairdii) in Colombia

By Emilio Constantino

#### Introduction

Colombia is the only country to have the three American tapir species living within its borders, Tapirus bairdii (Central American, Chocó or Baird's tapir), T. terrestris (Lowland or Amazon tapir) and T. pinchaque (Mountain or Woolly tapir); also, a rare form or subspecies of the lowland tapir, known as Colombian tapir or T. terrestris colombianus. That richness reflects the great biodiversity of this country and the unique ecosystems it harbors. Regrettably, as highlighted in this report, little is known about the vast majority of the species and ecosystems at a time when they face high and tangible risks of extinction.

The Colombian tapir, *T. terrestris colombianus*, was classified from a few individuals collected by the American vertebrate taxonomist Phillip Hershkowitz during the 1940's and 50's in northern Colombia. The taxon is currently assigned to a population of the lowland tapir occurring in trans-Andean eco-regions, or regions located to the west of the Eastern cordillera of the Colombian Andes. Very little-known, over hunted and with most of its original habitat transformed, today this sub-species is considered critically endangered throughout all its distribution range.

The Baird's tapir was said to occur from southern Mexico, southwards across Central America and along the pacific coast of South America, south to north western Ecuador. Today doubts are cast about its southern distribution, but there are several references about the occurrence of this species in Colombia. In this country, the species is currently known to occur only in a few places of the Darien and northern Chocó eco-regions, and it is also considered critically endangered.

Urgent actions are needed to prevent these tapir species from becoming extinct in the near future: a complete ban on their hunting, the creation of nature

reserves and education of people living within their ranges. If these three actions (at least) are not taken seriously and resources are not invested, we may be witnessing the extinction of these remarkable animals in the next decades.

This report is the result of several years of field work by the author in the Colombian Darien, the Sinú, the Chocó, the Magdalena Medio and the Sierra Nevada de Santa Marta regions while promoting the creation of private nature reserves.

### Historical Distribution of the Species

# 2a. Tapirus terrestris colombianus or Colombian tapir:

This species was first observed and described by an American scientist about 60 years ago in northern Colombia, but it was known long before by the indigenous peoples that inhabited the country, as can be deduced from the names given to many localities within its rage: "Las dantas", "la danta", and so on. It is believed that the common American name for the tapir, "danta", has an aboriginal origin. It is very similar to the name used by the Embera people for these animals. The Embera lived in the Urabá region at the moment of the Spanish colonization, where the town of Santa Maria la Antigua del Darién was founded; it was the first Spanish settlement in continental America and port of entrance to South America.

The species used to inhabit all the jungles and savannas, from sea level to up to 1500 meters above sea level, between the western and eastern Andean ranges, including the Magdalena Medio region, the inter Andean valleys and the Sierra Nevada de Santa Marta Range. Also, it was known to occur in the Catatumbo, a Trans-Andean eco-region shared with Venezuela.

In the Upper Sinú valley, it was found by Hershkowitz (1954) to be sympatric with the Baird's tapir. The North-westernmost distribution locality for the species is currently believed to be the Atrato River, which drains from the northern Chocó watershed to the Caribbean Sea.

The Colombian tapir was originally found in the upper and mid Cauca, and in the upper Magdalena watersheds, where they have become extinct recently – in the last hundred years or so. It is present today in some remaining forest fragments along the mid and lower Magdalena region, the upper Sinú watershed and the Sierra Nevada de Santa Marta Range. There is some evidence that it also inhabited dry and semi-dry ecosystems in northern Colombia's Caribbean eco-region; eastwards, the lowland tapir also occurred in the Catatumbo watershed, where it was hunted by the Barí people; a damaged skull deposited in a Venezuelan museum collection is the only tangible evidence, but again, the region has many places known as Las Dantas or La

Danta, and it exists in the Barí mythology.

Today, most of the above mentioned areas have been transformed into grass fields for cattle ranching, oil palm plantations and rice fields. Most of the timber used for home furniture in Colombia has been taken from the Magdalena Medio jungles. In the last 20 years this region also has been one of the main places to grow coca for the cocaine foreign markets and the ground for intense warfare between left- and ultra right-wing subversive forces. The oil industry has also been an important factor for the colonization and destruction of these jungles.

# 2b. Tapirus bairdii or Baird's tapir:

This species is known to occur from tropical Mexico, southwards, across Central America and Panama, and up to North-western Colombia, even though the literature says that it reached North-western Ecuador, along the Chocó or pacific jungles of Colombia. Our recent search in museum collections all over the world showed that there is no proof of its presence in Ecuador or even in the Pacific coast of Colombia, except from the northern most sector of the Chocó, along the Serranía del Darién Range, along the border with Panama. The easternmost distribution range locality was the Upper Sinú valley, where it was found to be sympatric with the Colombian tapir.

Again, there are many places called Las Dantas or La Danta, along the pacific coast of Colombia, but only scattered unconfirmed records from hunters or natives indicate that the species occurred or may be currently present there.

There is also the belief among Afro-Americans and Indigenous peoples of central Chocó that if a newborn's navel is belted with tapir skin, the child will develop the strength of this animal. So far, no animals have been seen, nor collected south of the Baudó mountain range in northern Chocó. There are some reports from old hunters that knew the tapir in the Chocó jungles, in places such as the Anchicayá, Calima and Naya rivers, but there is not a single skin or bone to prove it.

The central and southern sectors of the Chocó have been inhabited by peoples of African ascendance who settled in these remote regions after escaping slavery. These peoples obtain most of their protein from fishing and bush meat, and may have had a great impact on the tapir population since three hundred years ago. Although these jungles remain fairly well conserved, over hunting, timber extraction, and farming along the rivers are common activities today. To make matters worse, coca for cocaine is being grown in large fields today. Warfare between left-wing guerrillas, ultra right-wing paramilitary, narco-traffickers and the official Colombian army has gained intensity in the last five years. This has been also the case for the upper Sinú region and the Darien Range, where combats, civilian

displacement and casualties are happening daily. These jungles still provide important amounts of timber and paper pulp for the markets.

## Current Distribution of the Species (2005)

#### 3a. T. terrestris colombianus:

Today the jungles that existed in most of the eco-regions are gone, except for a few large tracts in the Sierra Nevada de Santa Marta Range, Magdalena Medio Region, Serranía de San Lucas Range, the lower Cauca River and the Upper Sinú watershed.

In the Sierra Nevada de Santa Marta Range a fragmented population has been identified in the Palomino River watershed, where they are being protected by the indigenous Arhuaco community and by the Cooperativa de Pescadores del Río Palomino (a local activism group), by means of declaration of a nature reserve and by the direct education efforts of the inhabitants of the locality. More recently (August 2003), several tracks were observed on a dry creek in very dry forest ecosystems located in the Tayrona National Park (Jesus Castañeda, Tayrona National Park Ranger, pers. com.).

Another population has been identified in the upper Guatapuri watershed, and there are indications that the species is still present in the Sierra Nevada National Park, today under the management of the Kogui and Arhuaco indigenous people, but no recent research has been conducted to confirm so. The political situation of the Sierra Nevada de Santa Marta Range has made it difficult for researchers the access to the region.

In the Magdalena Medio region, where the jungles have been affected by logging and deforestation, several large and medium size patches of forest remain, including the Serranía de San Lucas Range, where there are reports of presence of tapirs. Several records from the El Encanto Nature Reserve, located in the Cimitarra River watershed, and in a new reserve along the lower Ermitaño River, where a nature reserve for the protection of the blue knobbed curassow has been declared, evidence that the species still present in the region. Other large patches of forest in the Antioquia Department, in the lower Cauca watershed, seems to have the species, but again, the difficult access to the region, due mainly to the political situation, has made it impossible for researchers to visit the area.

No recent records exist neither for the upper Sinú region nor the Catatumbo watershed, but the species may still present there, as large patches of forest remain in those areas, unfortunately heavily affected by warfare and drug crops.

Today, the species is considered extinct in the Upper Cauca valley, the Upper Magdalena valley, the Caribbean dry plains and the southern slopes of the Sierra Nevada de Santa Marta Range.

#### 3b. T. bairdii:

Nowadays, only a fragmented population has been located near the visitor's centre of the Los Katíos National Park, in the northern Chocó eco-region, and it has been documented on video by Hector Restrepo, who estimates a total of eight to ten individuals still present in the park.

During 2004 several tracks and dung piles were observed near the Sasardí Integrated Nature Reserve, located in the Darién region. Occasional reports of tracks and sightings were obtained from local residents of the Colombian Darién, but the reports were made as something new and interesting, maybe because of the partial recovery of the species' population in those sectors. The species is probably still present along the Darien Range, but the political and warfare situation has made it impossible to visit in recent years.

Since its discovery in the upper Sinú by Hershkowitz, no more reports of the species have been obtained. The director of the Paramillo National Park, Mr. H. Martinez, reports the presence of tapirs there, but without distinguishing between *T. terrestris* or *T. bairdii*.

Embera indigenous people and several field researchers consider the species extinct in the Utría National Park in the south. No more records for this species exist in Colombia, but occasional reports from hunters and locals indicate that the species may be present in remote areas of the Baudó Range, and in the western foothills of the western cordillera in the departments of Chocó, Risaralda and Valle del Cauca.

Some places that need verification of presence are: Upper Baudó River; Las Orquídeas National Park; Paramillo National Park; Upper San Juan River / Tatamá National Park; Upper Fugiadó River; Middle Calima watershed / Ordoñez creek; and Western slopes of the Farallones de Cali National Park. The Awá indigenous people of western Nariño, near the Ecuadorian border, do not know the species and do not recognize it from pictures.

#### **Project Activities**

- Five (5) visits to the Darien eco-region;
- Five (5) visits to the Sierra Nevada de Santa Marta eco-region;
- Four (4) visits to the Magdalena Medio eco-region;
- Distribution of 50 posters of *Tapirus bairdii* among local people and organizations in the Darien eco-region, kindly provided by Dr. Eduardo Naranjo, from Mexico;
- Presentations to local people and organizations within the three eco-regions about the endangered status of the tapir species present in each;
- Promotion of the Civilian Society initiative for nature reserves in the three eco-regions;

- Confirmation of sightings and tracks in several places;
- Verification of presence in the Farallones de Cali National Park, so far negative for *T. bairdii* and *T. pinchaque*;
- Development of the Red Book data for *T. bairdii* (attached).

#### Recommendations

Both species, *T. bairdii* and *T. terrestris colombianus*, are considered critically endangered (CR) in Colombia by the recent Red Book of Colombian Mammals produced by the Humboldt Institute; urgent activities to reverse this trend include:

- Creation of more nature reserves and national parks in the species' ranges;
- Total ban of the hunting of tapirs;
- Awareness and education campaigns for local peoples and local authorities;
- Verification of actual presence for both species in some remote areas:
- Biological and ecological research on both species.

## Acknowledgments

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#### **ATTACHMENT**

#### Red Book of Mammals of Colombia

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DANTA CHOCOANA - Tapirus bairdii (Gill 1885)

Categoría Global UICN 2004: En Peligro EN

Categoría Nacional: En Peligro Crítico CR

Otros nombres comunes: Danta, Danto, Anta, Macho de monte, Anteburro, Tzimin (Maya), Tapir Centroamericano, Danta Centroamericana, Dandá (Emberá-Katío)

Distribución: Se encuentra desde el sur de México hasta el Golfo de Guayaquil en Ecuador. En Colombia se encuentra en las tierras bajas del Pacífico y en el flanco occidental de la Cordillera Occidental, en altitudes hasta de 1000 m (HERSHKOVITZ 1954; MATOLA et al. 1997). Aún no es clara su distribución en el Pacífico; actualmente el sitio más al sur conocido es el Parque Nacional Natural Ensenada de Utría, donde la especie es hoy reportada como recientemente extinta. Los demás sitios al sur de esta localidad están por comprobarse, al igual que el reporte para el Ecuador, del que no existen registros. En Costa Rica y Honduras la especie habita > 3000 msnm. En Colombia existen reportes anecdóticos de cazadores para el cerro Torrá, y los ríos Calima Medio (Quebrada Ordóñez), Anchicayá y Naya.

**Descripción:** La Danta Centroamericana es el mamífero más grande de Centroamérica, pudiendo llegar a pesar hasta 300 kg y medir 2 mts de longitud y I m de alzada (HERSHKOVITZ 1954; PADILLA & DOWNER 1994).

**Habitat:** Frecuenta los bosques húmedos y secos (e.g., Parque Nacional Guanacaste, en Costa Rica) de tierras bajas, aunque en algunas ocasiones se le ha visto en bosques montanos y páramos centroamericanos (MATOLA et al. 1997).

Historia Natural: Como todos los tapires, la Danta Centroamericana es un animal solitario. Su dieta se compone principalmente de hojas, frutas, cortezas y brotes tiernos de gran variedad de plantas, que ramonea mientras camina en zigzag (Terwilliger 1978; Naranjo 1995a, 1995b; Naranjo & Cruz 1998). Para algunas plantas el tapir es un importante dispersor de semillas, especialmente de las de gran tamaño que no son dispersadas por otras especies; para otras especies actúa como depredador (Janzen 1982). La Danta Centroamericana es una especie principalmente nocturna. Sus periodos de mayor actividad son 04:00-07:00 h y 18:00-20:00 h. Su ámbito hogareño varía entre 0,27 km² a 1,8 km² (Naranjo 1995a). Además del hombre, otros depre-

dadores importantes del tapir centroamericano son el Jaguar (*Panthera onca*), el Puma (*Puma concolor*) y el Caimán del Magdalena (*Crocodylus acutus*).

Estado Actual y Amenazas: Su principal amenaza es la cacería, que ha llevado a la especie a la extinción en algunas localidades, especialmente en el Urabá, las serranías de Tripogadí y del Darién, así como en el Sinú, y en general en toda la costa Pacífica. El gran tamaño del tapir hace que éste sea una de las presas más buscadas por los cazadores. La carne es aprovechada para la subsistencia y en algunas ocasiones los excedentes son vendidos en los mercados locales como carne de monte. Al igual que los demás tapires, T. bairdii es una especie muy sensible a la intervención de su hábitat y a la cacería (Brooks et al. 1997). Aparentemente sólo las poblaciones del Parque Nacional Natural Los Katíos y algunas áreas aledañas en la Serranía del Darién serían el último remanente de esta especie en Colombia. Aún ahí, la continua presión de caza ejercida por los pobladores vecinos al parque, que viven en una situación social muy compleja por el conflicto armado, puede eventualmente estar poniendo en serio riesgo su viabilidad poblacional. Ya ha sido considerada como extinta en el Parque Nacional Natural Ensenada de Utría por los propios cazadores Embera (ULLOA et al. 1996). Esta situación ha motivado a considerar las poblaciones colombianas bajo el criterio A de rápida reducción en el tamaño poblacional, en virtud de una obvia reducción poblacional proyectada o sospechada en los últimos diez años en niveles mayores o iguales al 80%, lo que implica una categorización de En Peligro Critico CR (A2cd+3cd) siguiendo las definiciones de la Unión Internacional para la Conservación de la Naturaleza (UICN).

Medidas de Conservación Tomadas: Debido a las drásticas reducciones poblacionales causadas mayormente por la cacería indiscriminada, la especie se encuentra incluida en el Apéndice I de la CITES. Se sospecha que aún exista una población en el Alto Sinú, Parque Nacional Natural Paramillo, donde la reportó Hershkowitz; podría existir en los Parques Nacionales Naturales Orquídeas, Tatamá y Farallones de Cali, pero aún no hay evidencia.

Medidas de Conservación Propuestas: La restauración de los bosques chocoanos, con vocación forestal y un adecuado manejo de estos recursos, podría compensar la pérdida de hábitat que ha sufrido la especie. Se requieren estudios de campo para determinar su presencia en muchos lugares, especialmente, en la Serranía del Darién y de Los Saltos, así como en el Alto Sinú, Parque Nacional Natural Paramillo, donde aparentemente se ha extinguido. Se requieren estudios de disponibilidad de hábitat y monitoreo de sus poblaciones con el objeto de plantear un eventual programa de reintroducción con alta participación comunitaria que garantice un mínimo de éxito. La evaluación de los efectos de la minería y extracción forestal y la integración de esta especie a programas de educación ambiental son actividades altamente recomendables.

# Linking Mountain Tapir Populations in South-Western Colombia

By Sergio Sandoval Arenas

The mountain tapir (*Tapirus pinchaque*) is perhaps the most endangered species in the family Tapiridae. Remnant populations of the species inhabit Andean ecosystems of Colombia, Ecuador and northern Peru, mainly at elevations between 2,000 and 4,500 m above sea level. Current total counts probably number less than 3,500 individuals and 70% (nearly 2,500 individuals) among these inhabit the Colombian Andes, along the southern part of the Central and Eastern Cordilleras (Lizcano et al. 2002). Unfortunately, the species' distribution range overlaps with areas of high human development in the country. With humans occupying and transforming the Andean forests at the lower limits of its distribution, the mountain tapir has been displaced to the thick, high Andean forests and páramos to search for food and refuge.

Habitat loss is not the only threat that the mountain tapir faces in Colombia. Although animals could seemingly disperse along the higher elevation areas of the Andean cordilleras, habitat fragmentation is probably disrupting this continuity, breaking apart the last mountain tapir populations (Figure 1). Expert analysis suggests that a viable mountain tapir population must be composed of at least 1,000 individuals living in a continuous area of nearly 300,000 hectares (Montenegro 2002). This scenario is difficult to find inside any currently protected area in the Andes of Colombia, where the largest section of continuous protected habitat for the species hardly encompasses 20% of this extension (59,900 ha. in Sumapaz National Park; Lizcano *et al.* 2002; Figure 1).

Because it is unlikely that there will be a viable population of mountain tapirs inside just one national park, the integration of various protected areas may be an alternative for the conservation of this species. One of the places where this kind of integration could be successful in Colombia is at the southern limit of the Central Cordillera, in an area known as the Colombian Massif. A nearly continuous belt of páramos and Andean forests runs along the ridge of the cordillera, representing a potential high Andean corridor. Along this belt, three national parks have been established (Puracé, Nevado del Huila and Las Hermosas) and the areas between them seem to have relative low levels of human disturbance (Figure 1).

During 2004, a pilot project took place in the northern sector of Puracé National Park. The objective of the