

## World Heritage Sites

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## DESEMBARCO DEL GRANMA NATIONAL PARK CUBA

*The uplifted marine terraces and karst topography of the Desembarco del Granma National Park have geomorphologic features of world significance. They include spectacular stair-step terraces and the biodiverse ecosystems that have evolved on them, and some of the most pristine and impressive cliffs bordering the western Atlantic between the Canadian Maritimes and southern South America. The Park commemorates the landing from their yacht the Granma of Cuba's revolutionary leaders in 1956.*

### COUNTRY

Cuba

### NAME

Desembarco del Granma National Park

### NATURAL WORLD HERITAGE SITE

1999: Inscribed on the World Heritage List under Natural Criteria vii and viii.

### STATEMENT OF OUTSTANDING UNIVERSAL VALUE [pending]

The UNESCO World Heritage Committee issued the following statement at the time of inscription:

#### Justification for Inscription

The uplifted marine terraces of the Desembarco del Granma National Park and associated ongoing development of karst topography and features, represent a globally significant example of geomorphologic and physiographic features and ongoing geological processes. The area includes spectacular stair-step terraces and cliffs and the ecosystems that have evolved on them, as well as some of the most pristine and impressive coastal cliffs bordering the Western Atlantic between the Canadian Maritimes and southern South America

### IUCN MANAGEMENT CATEGORY

II National Park

### BIOGEOGRAPHICAL PROVINCE

Cuban (8.39.13)

### GEOGRAPHICAL LOCATION

The site is on the coast of southeastern Cuba extending 47 km from Cabo Cruz to Pilon, 160 km west of Santiago de Cuba, between 19°49'-19°55'N and 77°18'-77°45'W.

### DATES AND HISTORY OF ESTABLISHMENT

1986: Desembarco del Granma designated Cuba's first National Park (25,764 ha) under Ministry of Agriculture Regulation No.171/86; extended to 35.458 ha by Regulations 372/91 and 454/96;

1991 & 1996: Management transferred to the Ministry of Science, Technology and Environment.

### LAND TENURE

State-owned. Administered by the *Empresa Nacional para la Protección de la Flora y la Fauna*, of the Ministry of Science, Technology and Environment.

## AREA

32,576 ha: 26,180 ha terrestrial and 6,396 ha marine with a terrestrial buffer zone of 9,287 ha.

## ALTITUDE

From -180m to 460m.

## PHYSICAL FEATURES

The terraces of Cabo Cruz form the most singular coastal landscape in Cuba and are the world's largest and best preserved coastal limestone terrace system. They comprise a series of seven to eight 30-metre steps extending from 460m above sea level and three terraces to 180m below it split into over 25 smaller steps. They were formed during the course of tectonic uplift and changes in sea level related to past climatic fluctuations. The karst contains caves, canyons, 100m cliffs, dolines and sinkholes: one, the Hoyo de Morlotte, is 77m deep and 55m across. Geologically they are in a pseudo-pericline formation - elongated domes developed during the deposition of middle to late Miocene to Quaternary sediments, now exposed on the southern slopes of the Sierra Maestra Mountains, the highest in Cuba, which rise behind them. The area is still a tectonically active zone where the Caribbean plate is being subducted below the North American plates: 30 km offshore the floor of the Cayman trough is 6,000m deep. A steep coral wall is close inland where the clear currents sustain vigorous marine life. The area is well preserved owing to the dry climate, its inaccessibility and poor soils. Scenically the area is only surpassed by the mountains in the far east of the country.

## CLIMATE

This is a dry tropical climate with annual rainfall of 300-1,200mm, being in the rainshadow of the Sierra Maestra. The average temperature is 26°C. The coast is subject to increasingly frequent hurricanes.

## VEGETATION

The site is one of the most important centres of plant diversity and endemism in Cuba with a total of 512 predominantly xerophytic species, some 60% being endemic to Cuba, and 12 locally endemic. There are quite large areas of semi-deciduous evergreen tropical forest, a vegetation complex peculiar to the terraces, semi-arid xeromorphic coastal scrub with very old cacti, and mangroves near Pilon in the east. Offshore are flourishing marine ecosystems including seagrass beds.

## FAUNA

The site is one of high biodiversity and endemism. It contains 13 species of mammals, 110 birds, 44 reptiles and seven amphibians. At least 13% of the mammals, 22.7% of the birds, 90.9% of the reptiles and 85.7% of the amphibians are local or national endemics. Several species are under threat including the Caribbean manatee *Trichechus manatus* (VU) and blue-headed quail-dove *Starnoenas cyanocephala* (EN), an endemic monotypic genus. Other noted birds are the Cuban parrot *Amazona leucocephala* and white-tailed tropic bird *Phaeton lepturus*. The West Indian whistling-duck *Dendrocygna arborea* (VU) may visit. The rare local endemic Cuban night lizard *Crycosaura tipica* is also from a monotypic genus.

No reliable figures on the invertebrates are available although these are numerous, with particularly large numbers of molluscs and butterflies. Four out of six endemic species of painted snails, *Polymita picta*, *P. brocheri*, *P. venusta* and *P. versicolor*, which are among the most beautifully coloured molluscs in the world, live on the terraces; one, *P. brocheri* is found only in a small area. Another handsome mollusc, *Ligus vittatus*, is locally endemic. There are well-developed coral formations with associated fauna. These are visited by hawksbill turtle

## CONSERVATION VALUE

The spectacular marine terraces and karst topography of the Park are of world significance and have some of the most pristine and impressive coastal cliffs bordering the western Atlantic. Its biodiversity is also high. The Park lies within a Conservation International-designated Conservation Hotspot, a WWF Global 200 Marine Eco-region, a WWF/IUCN Centre of Plant Diversity and a BirdLife-designated Endemic Bird Area.

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## **CULTURAL HERITAGE**

The area has great archaeological value. Dozens of archaeological sites with petroglyphs and pictographs have been uncovered. It is the site of pre-agrarian settlements of the original Taina culture to which the local population preserves strong genetic and spiritual links. The 1,000-year old El Guate archaeological site includes a group of funerary caves and ceremonial squares with the pagan *Idolo del Agua*, carved 1,000 years ago from a stalagmite. Columbus landed on this coast in 1494. The mountains were always a refuge for dissident groups. There is a well-preserved 19th century lighthouse. The leaders of the Cuban revolution disembarked in 1956 from the yacht *Granma* among the mangroves at Playa las Colorados north of Cabo Cruz. Many of the earliest revolutionary battles took place in the area and in the mountains behind.

## **LOCAL HUMAN POPULATION**

At least 900 people live within the National Park, most of them in the fishing village of Cabo Cruz. About 8,000 people live in the buffer zone engaged mainly in agroforestry, which does not generally encroach on the Park.

## **VISITORS AND VISITOR FACILITIES**

Desembarco del Granma National Park receives little tourism; it was estimated that no more than 1,000 tourists a year, foreign and national, visited the site in the 1990s. The Park has two interpretative trails, one of which, El Guate, was the first to be built in Cuba and leads to the *Idolo del Agua*. The main activities are swimming, fishing and snorkelling. The staff is well trained and motivated but there is a lack of equipment to realise the potential for rock-climbing and diving. There are camping and duplexes near Las Coloradas where the landing is commemorated by a replica of the yacht and a small museum.

## **SCIENTIFIC RESEARCH AND FACILITIES**

The site has been the focus of numerous studies and researches on the local fauna, geology and flora. It is a very suitable locus for long-term studies of global climate change and the evolution of species between islands.

## **MANAGEMENT**

The Park is managed by the National Enterprise for Flora and Fauna Protection of the Ministry of Science, Technology and Environment. The Law on Environment, the Decree-Law on Forest Heritage and Wild Fauna (136/93), the Regulation for the Realization and Approval of Environmental Impact Assessments and the State's Environmental Inspection (168/95) provide the protective legal framework. The first management plan was approved in 1986. This is regularly updated and aims to maintain the conservation status of its landscapes and species, the preservation of genetic biodiversity, restoring ecosystems which are significantly degraded, and promoting conservation awareness and recreational use by the public. The site is not subject to major threats or pressures and is very well-preserved, though there are minor agricultural encroachments at Boca del Toro and La Jagüita. The main administration center is at Belic with four secondary centers at Cabo Cruz, La Jagüita, Alegría de Pío and Pilón.

## **MANAGEMENT CONSTRAINTS**

Natural disasters such as hurricanes and sea floods are the most significant dangers, and evacuation and rescue plans have been prepared against their recurrence. On the highest terraces, there was logging of semi-deciduous evergreen forest between 1940 and 1980 and an old logging road remains. A few exotic species have been introduced through grazing encroachments, which could affect the native flora and fauna, though they are less of a problem than in smaller islands. Several aggressive introduced thorny trees make natural regeneration of forest cover difficult without induced reforestation; for this reason the Park has an active nursery and reforestation program. Uncontrolled fisheries and effluent from nearby towns and sugar mills could threaten the reefs which are healthy but appear to be over-fished (IUCN, 1999). The management is limited by a lack of resources and technical support, inadequate infrastructure, equipment and transport (Darwin Initiative, 2001).

## STAFF

In 1999 a total of 194 people worked in the National Park, of which 16 were professionals, 32 technicians and 134 were labourers and 12 service workers. There is a marine patrol boat.

## BUDGET

In 1998 the National Park had a total budget of Cuban Pesos 600,000 (US\$30,000) and between 1994 and 1998 received a financial assistance totalling US\$60,000 from WWF Canada. More resources and equipment are needed.

## LOCAL ADDRESS

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## REFERENCES

The principal source for the above information was the original nomination for World Heritage status.

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## DATE

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