

# HATO PIÑERO



*“Environmental preservation certainly is one of man’s most difficult tasks. We must strive to change ourselves if we wish to preserve for future generations a world where forests and natural sites have not disappeared completely.”*

Karl Weidman says in his book, *Fauna de Venezuela*, that great success can be achieved in the preservation of fauna by reaching a balance between the adequate exploitation of a species and the rational preservation of its existence.

The main task of modern preservation policies is to look for the possibility to use nature, provided that the ecological conditions allow for the use of the available natural resources. Thus, environmental preservation begins a new phase: the contradictions between man and his surroundings are not apparent anymore, the human being is an essential part of nature and shall hence integrate himself into the environment in order to create fruitful relationships.

This is the basic idea behind Hato Piñero: a place where man and nature can coexist; where cattle-breeding and wildlife preservation are viewed as facets of a same enterprise.

## ABOUT PIÑERO

Hato Piñero is located in the southeast region of the State of Cojedes, a part of the natural sub-region known as Llanos Centrales de Venezuela (Central plains), which covers a large area of the country (25%). The relief of the llanos altos (high plains) is almost entirely flat, altered only by the presence of the Massif of El Baul, which constitutes one of the natural boundaries of Hato Piñero. Located in the north, the origin of said outcrops dates back to different geological times.

Metasedimentary sequences of the superior Paleozoic are present, which have been subsequently intruded by rocks of igneous origin. Also, a series of volcanic rocks dating from the Mesozoic era (Gonzalez de Juana, 1980) stand out. For this reason the Massif of El Baul is of great interest to geologists and paleontologists. The other boundaries are formed by a four-river system: on the west boundary, the Cojedes River, that flows into the Portuguesa River, which, in turn, defines the south boundary; and on the east, the Chirgua River. In addition, the Pao River runs through the ranch from north to south. These boundaries enclose Piñero's lands in an area where topography levels range from 100 to 600 meters above sea level, thus originating a variety of habitats and vegetations, namely: wetlands, covered by plant species such as the "paja chigüirera" (*Paspalum fasciculatum*), the "paja lambedora" (*Leersia hexandra*), the "paja de raiz" (*Sorghastrum parviflorum*) and the "paja de agua" (*Panicum dichotomiflorum*); the park-like dry plateau forest, covered by "paja pelua" (*Trachypogon*) and the "gamelotillo" (*Paspalumplicatulum*), associated with non-flooded lands, such as hills and mountains. These lands share said sites with low semi-deciduous to semi-evergreen forests; medium high deciduous forests, covered by dragon trees (*Pterocarpus podocarpus*) and "gateado" trees (*Astronium graveolens*); and gallery forests, associated to the course of the rivers of the llanos.

In addition to these communities, there are others of a more local nature and of lesser extension, which contribute to the creation of a greater heterogeneity in the different types of habitats. Examples of these are the "palma llanera" (*Copernicia tectorum*), the mirity palm (*Mauritia flexuosa*) and the "corozo" palm (*Acrocomia sclerocarpa*), as well as the deciduous bush formed by the "lagunero" (*Llecatostemon guazumeafolius*).

One of the llanos most remarkable features is the great difference between the dry and the rainy seasons. In Hato Piñero, as well as in many areas of the llanos, 80% of the land is flooded by rainfalls and river over-flows. As rainfalls stop, the water withdraws, and the lowest areas -swamps, lagoons and "canoe" (narrow streams)- dry up gradually. This allows to discover other living beings such as shells, bivalves and crabs, which together with the fish that converge in the bodies of water, constitute the nourishment for hundreds of aquatic birds, which give a great beauty to today's landscapes of the llanos. At the end of the dry season some bodies of water disappear. During the dry season, which Venezuelans call "summer". Piñero dresses in pale colors of yellow, ochre and green tones. The trees of the deciduous forests loose their leaves during these rainless months. However, life begins to spring up in the "majomo negro" (*Lonchocarpus* sp), the oak (*Platymiscium* sp) and the "carnestolendo" (*Cochlospermum vitifolium*), which, like many others, bloom spectacularly. Those which preserve their leaves, such as the saman (*Pithecellobium saman*), the "aceite" (*Copalfera officinalis*), the "salao" (*Vochysia* sp), among others, seem to enjoy the harsh sun and their branches look festively dressed all through these season. The "guacimo" (*Guazuma ulmifolia*), and the "dividive" (*Caesalpinia coriaria*) drop their fruits among the cattle and wild animals, reducing the relative lack of resources and alleviating the scorching atmosphere of the dry season. In the forests the "maya" (*maya* sp), being very close to the ground, offers its fruits to monkeys and peccaries. Likewise, at the end of this season, announcing the coming of rains, many trees begin to sprout new foliage and bloom like the "araguaney" (*Tabebuia chrysantha*), which dresses the llanos in golden colors, as a reminding sign that life is not yet over. The drying river beds, "caños" and lagoons during the summer months provide for excellent viewing of wildlife since most animals must satisfy their water needs in shrinking pools.

As rainfalls begin in early May, the first showers seem to perform miracles. In a few days everything turns green and intensively lush. The lilies, abundant and short-lived, appear in swamps and savannas. Hundreds of birds, closely related to the presence of bodies of water, respond to this sign of abundance and color with elaborate nuptial courts. The color of their plumage, especially that of the male, is highlighted, and in other species, such as the heron, delicate feather crests appear. At this time, the sonorous and melodic songs of birds in search of mates resonate throughout the plains.

During the rainy season many of the “caños” and lagoons are navigable. Some of them preserve enough water until the end of summer, which allows for year-round navigation. These excursions are an excellent opportunity to observe the fauna and vegetation of the river banks. The rainy season ends in September, although it might still rain through October. The dry season begins in November and ends in April. This period of apparent

death is followed by the rebirth that is implied by the return of rainfalls. Hence, the cycles of the llanos follow one another in infinite sequential harmony. The contrast between these two seasons is so evident that it could be thought that one is before two completely different landscapes.

All these elements —the variety of habitats and the seasonal changes- account for Hato Piñero’s abundance of wildlife.

## ANIMALS AND PLANTS

One of Piñero’s most beautiful features is the diversity of its trees. In its forests, there are large areas where species belonging to the leguminous family predominate, thus allowing to find sections dominated by the presence of the saman (*Pithecellobium saman*), which alternate with other areas where the dragon tree (*Pterocarpus podocarpus*) constitutes the heart of the forest. There is also a species of Indian origin, which is almost completely tropicalized known as the mango (*Mangifera indica*). Locally, the “guaeimo” (*Guazuma ulmifolia*), the “guacimo cimarron” (*Luehea candida*), the “dividive” (*Caesal-pina coriaria*), and the “aceite” (*Copaifera officinalis*) are considerably abundant. Frequently, true giants such as the ceiba tree (*Ceiba pentandra*) can be found within the forests. The branches of the “cañafistolas” or drumstick trees (*Cassia grandis* and *Casia moschata*) and those of the coco de mono (*Lecythis ollaria*) are visited by the capuchin monkeys, which can be seen and heard beating the fruits against said branches, providing themselves the seeds to eat. The mango and the “guacimo” fruit are the macaw’s favorite fruit. The curassows also visit the “guacimos” while some birds such as the muscovy ducks, the whistling tree ducks, the macaws and the parrots, nest in the trunk of the “camorucos” (*Sterculia apetala*). In the impenetrable areas of low bushes, which are periodically flooded and are dominated by the “cacho” and the “lagunero” (*Hecatostemon guazumeafolius*), and interrupted by “palo de agua” trees (*Ruprechtia* sp), hundreds of herons meet to form colorful congregations known as “garceros”.

The list of mammals of Hato Piñero includes some species that have become extinct or are scarce elsewhere, such as jaguars, pumas, peccaries (two species) and tapirs. Even during a short stay at Piñero, the visitor will be able to observe white-tailed deers, fox (two species), capybaras, rabbits, bats, tayras, red howler monkeys, capuchin monkeys, squirrels, etc. These are the most common and abundant animals, but it is not difficult during a walk through the forest or on the roads to see ocelots, wild cats, giant and lesser anteaters, raccoons, jaguars and pumas, or to find their traces or remainders of their hunting from the previous night. The capybara, largest of all rodents, has been a source of food for the inhabitants of the llanos since recorded times. Piñero’s capybara population is large and, presently, biological and behavioral studies of this species are being carried out.

The most important and abundant reptiles on the ranch are caimans, which Venezuelans call “babas” (*Caiman crocodilus*). At the end of the dry season, when the “baba’s” habitat areas have been reduced to the smallest size, some of the lagoons and “caños” (the latter are natural drainages from the savannas, some

of which have water all year round), carry more than 200 individuals per hectare. Likewise, biological studies are being undertaken to determine the size of this population. Other reptiles include the abundant iguanas and several snake species, among them, the anaconda (*Eunectes murinus*), one of the worlds largest water snakes, comparable with the Great Python of India. There are also some types of lizards, turtles, terrapins, and tortoises.

As of birds, Hato Piñero is a true paradise for bird watchers. Today, the list includes more than 340 species identified by biologists and experts. Most of our visitors find new species, namely herons, storks, ibises, hoatzins, curassows flycatchers and seedeaters. Hato Piñero's fauna is known to be very tame, since the ranch has always maintained its zealous conserva-tionist program restricting hunting and protecting the environment. The animals, not afraid of man, as opposed to other places, are easy to observe and photograph.

## **A CATTLE-BREEDING RANCH**

Forty years ago, Piñero's owners decided to preserve the forest areas establishing a strict control on hunting, burning and deforestation. Since then, the areas of savanna are used for grazing. However, these areas are not over grazed, given that at present it is well known that pasturelands in the tropical zone are as important as the jungles for the equilibrium of the planetary climate.

The cattle coexists with the rest of the wildlife. Piñero's cattle-breeding program is said to be one of the most advanced in South America. The cattle was introduced in Venezuela by the Spanish colonizers some 400 years ago together with other domestic species that are known in the Americas, except for the Andean Camelidae (llama, vicuna, alpaca). Many of these species have lived for centuries in wild or semi-wild conditions and are part of the history and folklore of the llanos. These animals, which developed a great endurance to the hardships of the climate and the environment, and which in addition constitute an important genetic potential, are known today as creole cattle, similar to the Longhorn of the United States.

In 1945, the species of Indian origin (*Bos indicus*) were introduced, starting with the Brahman strain. These cross- breedings jeopardized the creole cattle absorbing it almost entirely. In Hato Piñero, we are succeeding in rescuing the creole cattle, currently increasing its numbers to a considerable herd. At present, there exist in Hato Piñero's well-balanced variety of herds, consist predominately of the Nelore breed (called Ongole in India), and other breeds such as the Gir, the Guzerat (called Kankrej in India), and the Brahman and Sahiwal specimens from Pakistan.

We carry out cross-breedings with different strains of *Bos taurus*, form Europe, using a genetic phenomenon called hybrid vigor or heterosis. Likewise, we use the above- mentioned creole cattle in these cross-breedings to procure stronger animals that can sustain the extreme climate conditions. Thus, in spite of the harsh condi-tions of our savannas, where acid and poor soils prevail, we obtain animals with a high performance as far as fertility and production of meat and milk is concerned.

All this has been possible thanks to the artificial insemination projects where Piñero has been a pioneer in Venezuela. The personnel which carries out these activities is trained in Hato Piñero, using successfully proven techniques. Students, veterinarians and expert agronomists from all over the country have come to visit us, in order to observe and learn said techniques. Frozen semen is produced here to be sold in Venezuelan and foreign markets. Moreover, there is a species known as water buffalo (*Bubalus bubalis*), an animal which is able to adapt easily to the extensive wetlands of Hato Piñero, which are inappropriate for the use of cattle. It is important to mention the horse herds, which like the creole cattle, originated with the spanish colonization of the region. These horses, though small in size, show a great resistance and nobility when performing the harsh duties of cattle ranching in the llanos, as compared to the improved strains.

It should be noted that the iron used to brand Hato Pidero's pure-breed cattle has the shape of a butterfly; this is why Hato Piffero is also called "Hato de la Mariposa" (Ranch of the Butterfly).

## HATO PIÑERO'S PEOPLE

Piñero's workers are mostly locals, skillful men able to perform the arduous labours of the llanos, and they are part of a group of people with special traits. Having an independent nature, their love for freedom led them to play an important role in the Venezuelan War of Independence. They enlisted in the patriotic front and with Simon Bolivar in command, crossed the Andes to liberate Colombia, Ecuador, Peru and Bolivia from Spanish rule.

The music of the "llanero" is perhaps the most authentic of all the national music. Their instruments are part of the country's folklore: the "cuatro" (small four-string guitar), the "arpa llanera" (small harp), and the "maracas" (rattles) accompany and give a particular charm to a kind of ingenuous improvisation of songs, known as "contrapunteo", exalting the deepest emotional feelings of the "llanero". They are extraordinary riders and their great knowledge, love and passion for nature is always present in their songs.

## PAST AND FUTURE

Piñero has many plans for the future and all are centered around the invaluable heritage of the past. The efforts for preservation carried out for years by the Branger family have resulted in the creation of the Branger Foundation, which counts nowadays with an extension of land where three important factors meet:

1. A large area destined for the Biological Station devoted to scientific research purposes, such as:
  - a. Ecological studies and preservation of flora, fauna and different habitats;
  - b. Behavioral studies of some species whose biology is scarcely known;
  - c. Recovery of species in danger of extinction, including felines like the jaguar or "American tiger" (*Panthera onca*), the puma or "American lion" (*Felis concolor*) and the ocelot (*Felis pardalis*), whose population, as that of the yellow-knobbed curassows (*Crax daubentoni*), among the cracidae, has increased considerably in Hato Piñero over the last few years. Currently, we are working to achieve the same results with the giant otter (*Pteronura brasiliensis*), the tapir (*Tapirus terrestris*) and the Orinoco crocodile (*Crocodylus intermedius*);
  - d. Elaboration of an inventory and a reference collection of the flora (Herbarium) and the fauna existing in Hato Piñero;
  - e. Studies on autochthonous gramineous and leguminous plants;
  - f. Protection and/or improvements of the wetlands;
  - g. Research on the importance of fire and its control in the savannas;
  - h. Studies on the spreading of fruit trees in the region, in order to increase fauna as well as forest areas that are attractive and give shelter to animals.
2. A private property where the owners have maintained conservationist measures with admirable determination, thus creating a beautiful, varied and abundant wildlife.
3. An accessible place where scientist as well as nature lovers can travel from Caracas and other places by paved roads (Hato Piñero is located close to the national road which connects El Baul with the highway to Caracas) or by plane, since the ranch has its own landing strip.

One of the most important projects is the creation of a biological research station, which is currently being expanded. Since 1982, a number of ecological studies have been developed with species such as the "baba", the capybara, the jaguar, the capuchin monkey (*Cebus nigrivittatus*), and two species of peccaries (*Tayassu tajacu* and *Tayasu pecari*), among others. This research has been supported by national institutions such as the Universidad Central de Venezuela, the Fundacion La Salle, the Fundacion Phelps, and the Sociedad Conservacionista Audubon de Venezuela; and international institutions such as The Nature Conservancy, The World Wildlife Fund of the United States of America, and The International Union for Conservation of Nature and Natural Resources.

These studies as well as the numerous visits of researchers and highly qualified professors have resulted in the compilation of inventories of the fauna and flora existing in Hato Piñero, as a sign of the typical ecosystem of the Venezuelan llanos.

It is the hope of all those who work on the Hato Piñero project that the scientific research done at the ranch be important and valuable for Venezuela's environmental preservation and becomes an example for the country itself, for other Latin American countries and even for the rest of the world.

Hato Piñero's past has been fruitful, the future looks bright and promising, and we know that the present is filled with life and natural beauty for our visitors.

## **Hato Piñero**

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