

A jaguar is lying on a large, weathered log in a fenced enclosure. The enclosure is made of tall metal posts and wire mesh. In the background, there is a grassy field with some trees and a sunset sky with orange and yellow hues. A small wooden structure is visible in the distance.

Reverting extinction:

The case of the jaguar in Argentina

When Mariua, a one-year-old female jaguar, arrived at Rewilding Argentina's breeding center from Brazil, we were far from imagining that two years later she would be the first jaguar roaming free in the Iberá wetlands, where her kind had been driven to extinction 70 years before. Mariua was not alone when she claimed the Iberá as her home. Two 4-months old cubs were by her side. After a few months of acclimatation in a 30-ha enclosure, we opened the gate and this small family of jaguars simply walked out of the fenced area. By doing so they reverted a process that we thought irreversible: extinction.

By Sebastian Di Martino (Conservation Director) and Emiliano Donadío (Science Director), Fundación Rewilding Argentina

Releasing Mariua and her cubs was relatively easy; preparing them for that important day was a different story. For close monitoring and long-term research, every adult jaguar that we release should be furnished with a state-of-the-art satellite collar. Mariua had one but the collar needed to be replaced as its battery was almost exhausted. Our capture team set up the traps; inside the 30-ha enclosure, it should have been easy to capture Mariua. It was not. The cunning cat learnt right away to detect where the traps were. She tested, jumped, and avoided the traps, driving our capture team crazy for almost a week. Moreover, the day we had set to release her was approaching and the new collar was still waiting in a box. Fortunately, after seven days our team managed to capture her, and deployed the collar. Mariua was ready; she and her cubs were released on January 5th. Soon after, we released Juruna, Mariua's sister, who also had two cubs. As a result, the first nucleus of free ranging jaguars was established in Iberá.

The many credits of large predators

Large predators are credited with supporting biological diversity and critical ecosystem processes. The putative effects of jaguars on ecosystems are related to the regulation of populations of prey herbivores through trophic cascades, either by reducing their number or modifying their behavior. This produces indirect benefits on the vegetation, with the consequent increase in the capture of CO₂ and the reduction of greenhouse gases into the atmosphere. This positive effect on the plant structure is also related to a greater biodiversity of invertebrates and small vertebrates. Furthermore, the elimination of diseased animals through predation prevents the spread of pathogens in natural ecosystems, some of which can potentially cause pandemics.

Ecotourism for conservation

But there is more. If managed correctly, large predators can strongly enhance ecotourism experiences based on wildlife observation. In short, the possibility to watch a large predator in its habitat should increase visitor numbers, boosting employment and diversifying job opportunities. Thus, the recovery and conservation of ecologically effective densities of large predators is a fundamental tool for maintaining the structure and function of ecosystems and the economic development of entire regions. It is paramount, then, to restore populations of large predators and their habitats.



Partnership for South America's forgotten landscape

The Gran Chaco, which occupies territories in four countries (Argentina, Paraguay, Bolivia and Brazil), hosts some of South America's most important forests and wetlands. However, this region has been long forgotten within the global conservation agenda and is suffering one of the worst deforestation and degradation processes worldwide. Fundación Rewilding Argentina has led the establishment of two large parks in the Argentinean Chaco: 700,000-ha Iberá national and provincial park in Corrientes province, and 130,000-ha Impenetrable national park in Chaco province. The partnership between DOB Ecology and Rewilding Argentina consists of:

- the long-term conservation of the Chacoan forests, wetlands and grasslands in these parks that will be fully functioning and proactively managed and monitored;
- restoration of grasslands, forests and wetlands with the reintroduction of keystone species; and
- the initiation of a restorative economy where ecotourism will set the basis for local development through the revalorization of traditional knowledge and skills.





Rewilding: an ambitious project

In Argentina, the presence of the jaguar declined drastically in the last 150 years with only 200-300 individuals persisting in remote parts of the country. Besides complete extirpation in Iberá, jaguars are at the brink of extinction in the Impenetrable region, Chaco province. To turn the tide, Rewilding Argentina has been working on reintroducing jaguars in Iberá and increasing jaguar numbers in Impenetrable since 2011. This project, one of its kind, relies on the design and implementation of bold strategies that include breeding jaguars in large captive facilities, translocating wild animals from other Latin American countries like Brazil, and successfully mating a wild with captive individuals using a system of cages and enclosures built in remote areas. Cubs born from captive females are raised without human contact so they can be released when they are 2 years old.

Battling traditional conservation

Such an ambitious project does not come without difficulties. All kind of technical issues had to be sorted out as the project moved forward. But most important, we had to battle the traditional idea of no intervention that characterizes the conservation movement in Argentina and Latin America. This is especially true when dealing with federal and state authorities to obtain the due permits to actively manage wildlife. Overall, our jaguar project along with other pioneering work in some Latin American countries is changing the conservation movement in the whole region.