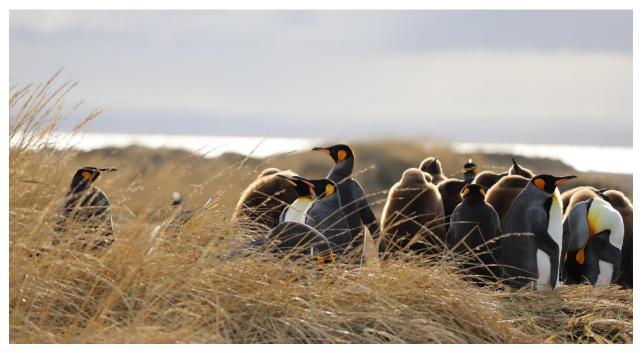


INTERNATIONAL LAND CONSERVATION NETWORK

How one family of sheep farmers transformed a "Useless Bay" into a sanctuary for America's only king penguin colony

Hernán Mladinic – ILCN Regional Representative for Latin America October 30, 2023

The king penguins arrived on the coast of Tierra del Fuego in 2010. There were about 90 of them, coming ashore overnight in Chile's *Bahía Inútil*, or Useless Bay, named by 19th century sailors for the brutal elements of wind, rain, and snow that deterred passersby from its shores. The birds' arrival established the first colony of king penguins in the Americas and inspired a family of sheep farmers to innovate, collaborate, and fight for the survival of an ecosystem.



King Penguins in Tierra del Fuego. Holder: Reserva Natural Pingüino Rey. Author: Matías Molina Casanueva.

From the beginning, the spectacle of these elegant, tuxedo-clad birds, changing feathers and attempting to reproduce, captivated onlookers. But many of those who were enamored with the king penguins knew little about their needs and vulnerabilities. Visitors approached the birds, seeking selfies and, unknowingly, threatening the colony's survival. Despite their outward charisma, the king penguins were in peril.

But the birds were not without human allies.

Cecilia Durán, was a local landowner and sheep farmer. When the penguins first arrived in Bahía Inútil, they found her property a delightful place to set down. Like others, she was initially pleased by the surprise arrival, but she soon took note of the impact human curiosity was having on the birds. Having grown up close to the land and nurtured by a conservationist grandfather, Durán knew a bit about ecosystem functioning and mechanisms for protecting it. She began to explore possibilities of using these tools to help the penguin colony thrive.

The main threat to the penguins was uncontrolled visitation. The birds were nesting on a coastal section of Durán's family's nearly 1,000-hectare (about 2,471acre) ranch, in a section that was not suitable for cattle activity and that lay far from the family's house. Thus, they did not immediately notice the uncontrolled stream of visitors. When they did, they found the area crammed with people and vehicles.

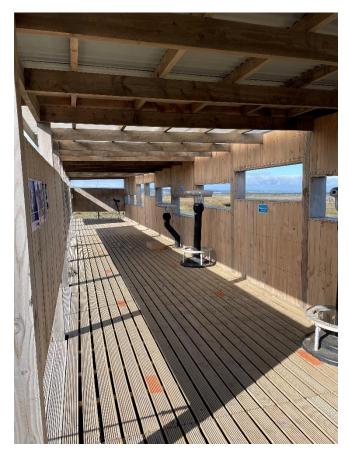
To address this, the family installed a perimeter fence both to ensure cattle stayed out and to prevent human trespassing. Durán's first ally was her daughter, Aurora Fernández, who studied conservation and tourism in protected areas for her postgraduate thesis. Together, they drew up a management and conservation plan for the area. One of the first steps was to build a trail from which the birds could be observed, while minimizing human contact. From there, the idea of a park with a caretaker and systematic monitoring emerged.



Fences designate a walking path in the reserve. Holder: Reserva Natural Pingüino Rey. Author: Matías Molina Casanueva.

Their work began to attract attention from biologists, archeologists, veterinarians, and those leading tourist ventures, all of whom cared deeply about the health and survival of the remaining colony and were willing to do what it took to keep these new neighbors in town. The group rallied around their shared interest to lay the foundation for a comprehensive plan to both safeguard the penguins and preserve the archaeological sites of Bahía Inútil.

Today, 20,000 people visit the reserve each year, meaning policies and infrastructure to regulate tourists' environmental impact are vital. The park uses a rotating entry system to facilitate this. Tourists must make a reservation to enter the park, and no more than 90 people are allowed in each day. Visitors must also always stay at least 20 meters from the birds. Durán said that controlling the park's visitor load is the only way to maintain to tourist access, sustainably.



An observation deck helps minimize human contact with the wildlife. Holder: Reserva Natural Pingüino Rey. Author: Matías Molina Casanueva.

Currently, the reserve covers 32 hectares (about 79 acres) of the family's ranch. The family plans to expand the area soon to include a 60-hectare (about 148-acre) buffer zone.

Transitioning from sheep farming to wildlife conservation had its challenges for Durán and her family. In the early days, resources were scarce. Banks and other organizations the group turned to were unwilling to offer financial assistance for the venture that had little precedent to lean on. Durán's family, however, had each other. The passion of the motherdaughter duo was contagious, and the project gained the help of their husband and father, Alejandro Fernández.

In 2011, the family's dream began to materialize, as they officially opened the doors to *Parque Pingüino Rey* (King Penguin Park). From there, they celebrated many milestones as the colony grew and thrived. 2013 saw the birth of the first king penguin chicks. In 2015, the first of those chicks reached independence. The family saw this as a testament to the success of the conservation initiative.

Still, challenges persisted. In the winter of 2018, gray foxes began to threaten the colony, hunting and eating both adults and chicks. The following year was worse. The foxes were preying on more of the birds and a warm summer without much wind further stressed the king penguins. At the lowest point, only 10 percent of chicks were surviving.

The park's crew acted. They began to monitor the foxes, setting up cameras and marking the foxes to better track their activity. They then set up "safety" zones, depending on proximity to the reserve, that were used to determine when and how to intervene when foxes were present. The team made night rounds of the reserve between 9pm and 4am, used deterrent odors to keep foxes away, and began to study environmental factors such as wind, luminosity, temperature, humidity, and atmospheric pressure to see if they were correlated with the predators' activity.

The family's unwavering commitment to the birds' welfare paid off. In the wake of their work, the number of birds killed by gray foxes dropped 70 percent and the penguin population began to recover. In 2018, there had been between 80 and 90 adults in the colony; by 2021, there were 160.

As the population was recovering from the gray-fox crisis, Durán and her family began to broaden their vision for the conservation area. In 2020, they renamed the park *Reserva Natural Pingüino Rey* (King Penguin Nature Reserve) to reflect the new conservation approaches they were incorporating. In addition to protecting the penguins, the initiative now supported study and preservation of the region's

flora, fauna, and archaeological heritage. By incorporating renewable energies, using biodegradable products and waste management, they hope to contribute to reducing the footprint left by humans.

Archaeology has played an important role in understanding the colony. The king penguins that arrived in 2010 were not the first to find the island hospitable. Skeletal remains found on Bahía Inútil show that the birds once coexisted with Native Peoples, inhabiting Tierra del Fuego hundreds of years ago.



Aurora Fernández walks through the reserve. Holder: Reserva Natural Pingüino Rey. Author: Matías Molina Casanueva.

Prioritizing the health of other natural features of the area is similarly tied into the initial goals of the project. Aurora Fernández was particularly interested in the ripple effect of protecting the penguins. The health of the colony impacts each species inhabiting the landscape in and around their territory. What began as a mission to safeguard the penguins, thus, evolved into a comprehensive effort to revive an entire ecosystem.

The family's commitment to Reserva Natural Pingüino Rey is not entirely spontaneous. Connection with the land is deeply rooted and passed on through generations of Duráns and Fernández. Durán's passion for nature was cultivated in her by her maternal grandfather, a Spaniard who taught her about plants, their names, and the rhythms of nature. He was also a visionary man, whose advocacy for sustainable development was the foundation for Durán's engagement in environmental education from a young age.

Similarly, Aurora Fernández said she is driven by a dedication to the land, its people, and all the beauty she has experienced living on the island of Tierra del Fuego.

Perhaps the greatest shift was for Alejandro Fernández, whose family history, though still land-based, is in pastoralism. The activities that now consume his working hours are far different from those he grew up with and shared with his wife and daughter. But the transformation each family member underwent is a source of pride and a testament to the transferability of skills and values.

Reserva Natural Pingüino Rey proves the power of one family's commitment to the place that sustains them; the versatility of conservation tools, and the potential for communities to adapt quickly, to respond to Earth's ever-changing needs. In a place named for what it lacks, a small team created a sanctuary and revitalized an ecosystem. "I want everyone to have the opportunity to learn about this species; but we have to take care of it," said Durán. "We have to help the planet. If we want to survive, we have to help."