

museu de ciències naturals de Barcelona



1. Introduction

The Museum has created the exhibition *Invisible Animals: Myth, Life, Extinction, Deextinction*, presenting animals that we mostly cannot see either because they have become extinct (dinosaurs, the dodo, the Tasmanian tiger), because they only exist in the collective imagination (mermaids, dragons, yetis), or because they are almost impossible to witness due to their natural habitat (the giant squid) or human impact (the Montseny brook newt). Also animals that we are trying to make de-extinct through genetics, art or cultural movements. Every second, more species are disappearing that we have never even seen or been able to study. *Invisible Animals* throws the spotlight on the origins and the life of these animals, as well as the stories around them, in an attempt not only to preserve biodiversity but also to celebrate the memory of different populations from all over the world.

To draw these invisible animals out into the public eye, the museographical approach is multidisciplinary, using the Museum's natural science collections alongside works contributed by artists from diverse disciplines including conceptual art, painting, sculpture, music, photography, illustration, comic, tattoo, cinema, writing, and literature. Participating artists include the actor Viggo Mortensen, photographers Joan Fontcuberta and Txema Salvans, conceptual artists Antoni Muntadas and José Luis Viñas, the muralist Lily Brick, musician Rafel Plana, filmmaker Víctor Matellano, electronic art specialist Vicente Matallana and tattoo artist Paola Garmo, among a total of 30 guest contributors.

For this exhibition, the Museum has really leaned into sustainability and recycling, because just as important as it is to figure out how to make an exhibition, is to think about what happens to all the bits and pieces once it's finished. So wooden structures and various materials from previous exhibitions have been re-used, and all the signage and some major pieces like the giant squid – there to welcome visitors – have been made from biomaterials generated from organic waste.

The show itself is born of the *Invisible Animals Project* that writer and traveller Gabi Martínez and the Museum's naturalist and explorer Jordi Serrallonga – curators of the exhibition – began more than a decade ago based on their extensive expeditions around the world. To date, with the Museum as one of its closest collaborators, the project comprises a collaborative website, allowing any person, university or educational centre to expand the map of "Invisible Animal Explorers"; a book with a prologue by Viggo Mortensen; articles; documentaries; conferences, and, now, its most ambitious manifestation: this exhibition.



2. Thematic areas of the exhibition

The exhibition is structured across four thematic areas: **Myth**, **Life**, **Extinction** and **Deextinction**, which are housed in separate, semi-enclosed and enveloping spaces that in a way mimic cells endowed with movement and permeability. At the beginning of the exhibition, there is an audiovisual prologue in which the actor, director and artist Viggo Mortensen introduces the exhibition, in his own words, welcoming visitors with a fusion of voice and original music expressly created for *Invisible Animals* by Rafel Plana. The video recordings – in Catalan, Spanish and English (Viggo also speaks Catalan!) – were made in the library of the *Castell dels Tres Dragons*, one of the Museum's venues.

2.1 Myth

"Invisible to the eye, visible in the minds of the people"

A myth is a fabulous story. Some myths seem so real that, throughout history, expeditions have been organized and rewards have been offered to prove the existence of animals that only reside in the imagination. They have inspired paintings, sculptures, video games, and all kinds of merchandise.

The yeti, the Loch Ness monster, mermaids and *chupacabras* transport us to worlds of adventure and mystery. Studying myths becomes, essentially, an expedition towards the limits of fantasy. Myths invite us to continue exploring the planet, and to explore ourselves at the same time.

In this area of the exhibition you will find the Ts'ikayo, a half-human, half-elephant being known to the Hadza, an indigenous hunter-gatherer people of Tanzania. There are also stories about the *chupacabras*, a recent myth that emerged in Puerto Rico in the 1990s when newspapers reported that a strange beast was killing farm animals across the country. Some claimed it was an alien, or a giant bat, or the Latin American yeti, but in any case the legend quickly spread throughout Argentina, Peru, Guatemala, Chile, Mexico, and beyond.



2.2 Life

"When invisibility overcomes visibility"

Pink dolphins in the jungle, marsupials on tiny islands... Some rarely seen animals still survive in habitats as distant as they are hidden. Many are endangered, and their scarcity and significance compel us to protect them.

Some of these animals are more well-known, such as the blue whale that plies the oceans. Others, like the platypus, we may wonder whether they are actually real or a fanciful invention. But the fact is, in the wild, these animals that are so elusive and extraordinary are also extremely resistant. This is alternative fauna that we can come to know while respecting their environment.

At the same time, pollinating insects – which help to preserve biodiversity – are becoming extinct faster than mammals.

Among other creatures, this area of the exhibition features the immortal jellyfish, a gelatinous organism half a centimetre in diameter that reproduces infinitely; the black sheep; the wood grouse, and the Montseny brook newt, the only endemic vertebrate in Catalonia and one of the most endangered amphibians in Europe. You will also be able to listen to the sounds of spring, recorded over a 24-hour period in the Montseny Natural Park.

2.3 Extinction

"Between reality and fiction"

Thousands of animals that no longer exist still inhabit our minds. Not mythical beings, but creatures that, thanks to the discovery of fossil remains, we know lived on the planet. Claws, fangs, shells... Things like this speak of times when everything was – or seems to have been – much bigger. But in truth, both in the distant and near past, there were animals of all sizes. From dinosaurs and trilobites to mammoths and Neanderthals, to the moa and the dodo. Just by recalling their names we recover significant pieces of the planet's natural and cultural heritage.

Abusive hunting, poaching, uncontrolled logging, climate change and natural selection are some of the factors that explain the extinction of various species that, in addition to inspiring the scientific community's interest, still impact the present and future of humanity.

This area of the exhibition includes a replica of the jaw of a Megalodon (a 16-metre long shark that lived 20 million years ago); the interactive game "Create your own dinosaur",



based on dinosaur species whose remains have been found in Catalonia, and a replica of the famous painting of the Oxford Dodo, an animal which became extinct in the 17th century and then world famous when it appeared in Lewis Carroll's book *Alice's Adventures in Wonderland*, later becoming an international symbol of environmental activism and species conservation.

2.3.1 The Tasmanian tiger

Bridging the gap between the realms – or cells – of extinction and de-extinction, is the Tasmanian tiger (*Thylacinus cynocephalus*), one of the most famous invisible animals. Existing images suggest it was like a kind of striped dog, but in fact it was something else. A carnivorous marsupial, which disappeared in 1936 after Australian settlers hunted it on the grounds that it was killing their herds. This predator is now possibly being made de-extinct, as the University of Melbourne and a bio-research company have reconstructed its genome from a head that has been preserved for 110 years.

The artist Antoni Muntadas discovered this legendary animal during a stay in Australia in 1993. The recurring image of the Tasmanian tiger on the label of a beer bottle aroused his interest, and he researched its history. Although it became extinct, the Tasmanian tiger has remained alive from a symbolic point of view, both in everyday objects and in the collective imagination of the people, even though it has never actually been seen again.

2.5 De-extinction

"Bringing the invisible to life"

A recurring theme in science fiction stories is the de-extinction of monstrous animals from the past; a trend that also finds its way into the media. For example, frequent sensationalist headlines talk about the idea of cloning a mammoth from genetic material extracted from remains uncovered in the Siberian permafrost. All things considered, an activity that could raise serious bioethical issues. On the otherhand, science continues to recover DNA from species that have only recently become extinct, especially as a result of human societies rapidly altering the environment.

In these cases, the possibility of reviving extinct creatures that could help restore the balance of local ecosystems is a foreseeable goal. And beyond scientific processes of de-extinction, we can keep alive animals that might otherwise be forgotten through tools such as literature, works of art, tattoos, and so on.



In this area of the exhibition, among other things, you will see a faithful replica of "Miguelón" (a pre-Neanderthal skull found at the Sima de los Huesos site in the Sierra de Atapuerca, and the best preserved skull in the human fossil record); a life-sized illustration of a Neanderthal woman, and the Xerces blue butterfly, whose recent extinction resulted in the disappearance of the local coastal dune ecosystem in San Francisco (USA). An ongoing scientific project on the de-extinction of the Xerces blue may open the door to the recovery of other pollinating insects.

Exhibition texts and images

Images from the exhibition can be found here.

2.6 Additional elements

In between the thematic areas of the exhibition there are spaces showing audiovisual presentations on different aspects of all these creatures, and an education space with a range of activities. But the show does not end there: it continues with the permanent exhibit in the Museum, *Living Planet*, featuring a display of 12 creatures related to the theme of the show.

Preventing extinction

An audiovisual presentation, in which the testimony of two women – veteran naturalist and conservationist Odile Rodríguez de la Fuente (daughter of Félix Rodríguez de la Fuente) and the young environmental activist Carlota Bruna – provides a compelling argument for how we still have time to prevent more invisible animals entering the list of those extinct due to human actions.

Tradition and indigenous wisdom

Colonisation, genocide and globalisation have wiped out many indigenous groups and cultures. At the same time, local stories about real and mythical animals are also on the verge of disappearance.

This video preserves the testimony of Patricio "Pato" García, an experienced Ecuadorian mountaineer of the Andes and collaborator with the *Invisible Animals Project*, who died shortly after making this recording of his local and folkloric knowledge of the Quichua culture of the Andes and the notorious *chupacabras*.



Animal comics

Screen display of comics that have been created for various campaigns devoted to the conservation and protection of endangered species.

Education space

A space for children with a library of resources related to the invisible animals. With cushions to read comfortably on the floor, a fish mobile, and a large table illustrated by Aina Bestard that invites one to search for, magnifying glass in hand, 12 animal species found in the Montseny Natural Park that are often not seen.

Specimens featured in the permanent exhibition

The Museum's permanent exhibit features 12 creatures related to this show, including a model of a dodo, a tapir skeleton, and the real fossil skulls of a plesiosaur and a mammoth found in Barcelona, along with the curious platypus, the decimated African wild dog, the gorilla, the little spotted kiwi, the even smaller bumblebee and coral, the colossal whale, and the persecuted rhinoceros.



3. Museography, a journey through science and art

To bring the stories of these animals to light, the Museum has opted for a fusion of two worlds – science and art – which historically have had little interaction. This is a multidisciplinary museography that brings together the Museum's natural science collections with works contributed by a wide range of artists from different disciplines. Thus, taxidermies, skeletons, fossils, replicas, informative videos and preserved specimens sit alongside art installations, murals, sculptures, conceptual art, illustrations, comics, photographs, film, tattoos and written works, among other items.

For the construction of the exhibition, materials from past exhibitions have been re-used and all the signage (more than 70 panels) has been made from organic materials combining pigmented biopolymers with natural dyes such as turmeric, coffee and charcoal. The texts on these elements have been laser engraved to avoid the use of any inks. Other pieces in the exhibition have also been created with biomaterials, such as the 20-metre-long giant squid, the curtains in one area of the exhibition, and the fish mobile made from a biomaterial derived from olive pits. Once the exhibition is over, all this material can be broken down or composted. Indeed, with the residue it would be possible to plant tomatoes that might be eaten by animals that could appear in future exhibitions...



4. Activities

Invisible Animals features a programme of activities for all ages, inviting young and old alike to explore and reflect on some of the exhibition's content.

5.1 Activities for adults

5.1.1 The Lunatic Club. The Club will meet for five monthly scientific discussions moderated by exhibition curator Jordi Serrallonga. Invited guests will include experts on the thematic areas of the exhibition: life, myth, extinction and de-extinction.

The first session, on "Invisible Animals", welcomes environmental activist Odile Rodríguez de la Fuente, daughter and continuator of the legacy of her father, Felix Rodríguez de la Fuente. This will take place next **19 June, 6:30–8pm** at the Museu de Ciències Naturals de Barcelona in the Parc del Fòrum.

Subsequent sessions will feature, among others, the multidisciplinary artist Mila Lozano (Thursday 18 September), and specialist in ancient DNA and director of the Museum, Carlos Lalueza Fox (Thursday 18 December).

5.1.2 ConversesNat, roundtables at the Museum

Three ConversesNat roundtable discussions are planned for the autumn season, where we will hear from such relevant voices as biologists and genetics experts Lluís Montoliu and Gemma Marfany (Thursday 6 November), specialist nature journalist Mònica Artigas, and environmental communicator and influencer Carlota Bruna (Wednesday 8 October).

5.2 Activities for kids

5.2.1 Flipbooks

A flipbook, flicker book or kineograph, is a way of making illustrated animation page by page. This can be an interesting technique for showing natural phenomena such as geological changes, the growth of plants or the evolution of animals. This activity for families with children will take place as part of the Museum's summer programme, from 12 July to 8 September.



5. The curators: Gabi Martínez and Jordi Serrallonga



Gabi Martínez (Barcelona, 1971)

Gabi has travelled the Nile from source to mouth, explored the Pakistani Hindu Kush, the Venezuelan rainforests, the Chinese coast, the Amazon, Patagonia, and crossed Australia from coast to coast. He has written about places, people and other animals, and the ties that bind

them. Raising awareness of the importance of these natural alliances is at the heart of his work, which has received numerous awards, been published in ten languages and adapted to various formats. Selected titles include *Only for Giants, A Real Change, On the Barrier* and *Invisible Animals*. *Delta* was voted best book of 2023 by literary magazine WMagazine.

He also features in "Colombian Massif", episode 3 of the documentary series *Finding Encanto*, winner of a Dofi award at the Cannes Film Festival.

A contributor to media such as National Geographic, Altaïr and Sumaúma, he also speaks about nature on Cadena Ser radio and in several newspapers. He is director of the LiterNatura Festival (UNESCO award), founding member of the Asociación Caravana Negra, and the Fundación de Ecología Urbana y Territorial.



Jordi Serrallonga (Barcelona, 1969)

Born in the asphalt jungle, Jordi is an archaeologist, naturalist and explorer, as well as a close collaborator of the Museum for more than 20 years. This nomadic primate has travelled all over the planet, wandering among fossils, animals and ethnic groups in the jungles, savannahs, seas, deserts and mountains of Africa, America, Oceania and Asia.

Back home, he swaps the old fedora and field notebook for his work as a university lecturer, as a collaborating professor of Prehistory, Anthropology and Human Evolution at the Open University of Catalonia. He also teaches master's degree classes at the University of Girona and the Autonomous University of Barcelona.



With a Research Award from the Spanish Geographical Society, some of Jordi's most recent books are *Dioses con pies de Barro* (2020), *Mito, vida y extinción. Animales Invisibles* (with Gabi Martínez; 2021), and *Un arqueólogo nómada en busca del Dr. Jones* (2023). He also writes for and participates in various media, including scriptwriting and advising on documentary series.

A lover of cinema, Jordi uses films to bring science to public attention. He coordinates the "Science and Film Stories" programme for Pessics de Ciencia, and the "Science and Film CineFórum" for the Museum, where he also curated the exhibition *Origins*. *Universe, Life and Humanity*.

Jordi continues to observe the planet with the same curiosity as the scientists who inspire and inform his life in the pursuit of knowledge.



6. General information

Opening times: 17 May 2025 to 17 May 2026

March to September

Tuesday to Saturday, 10am-7pm

Sundays and public holidays, 10pm–8pm

Closed: Mondays (not public holidays), 1 January, 1 May, 24 June, 25 December

Admission: €6.50

Concession: €4.50

Combined ticket Animals Invisibles and permanent exhibition Life Planet. €10.50

Combined ticket: €6.50

Free entry for children under 16 years old

- More information: museuciencies.cat
- Follow us and share: #AnimalsInvisiblesMCNB

Museu de Ciències Naturals de Barcelona

Pl. Leonardo da Vinci, 4-5 (Parc del Fòrum)

08019 Barcelona

museuciencies@bcn.cat

Tel. 932566002

Media & Press Marta Llimona Tel. 93 2565973 or 636081599 <u>mllimonas@bcn.cat</u>



7. Museu de Ciències Naturals de Barcelona

The Museum comprises a group of facilities located in three emblematic parks in the city: its main headquarters in the **Parc del Fòrum**; the Jardí Botànic de Barcelona and the Jardí Botànic Històric (botanical gardens), in the **Parc de Montjuïc**; and the Martorell Exhibition Centre and the Castle of the Three Dragons (a research centre in the process of being restored), in the **Parc de la Ciutadella**.

Altogether, the institution boasts 147 years of history and a collection of four million specimens in the fields of mineralogy, petrology, palaeontology, zoology and botany.

The Museu de Ciències Naturals de Barcelona is a consortium formed by the Ajuntament de Barcelona (Barcelona City Council) and the Generalitat de Catalunya (Government of Catalonia).



8. Credits

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INVISIBLE ANIMALS MYTH. LIFE. EXTINCTION. DE-EXTINCTION

Producció / Producción / Production Museu de Ciències Naturals de Barcelona

Direcció / Dirección / Management Carles Lalueza-Fox

Idea, continguts i comissariat / Idea, contenidos y comisariado / Concept, content and curatorship Gabi Martínez Jordi Serrallonga

Assessorament científic / Asesoramiento científico / Scientific advice Carles Lalueza-Fox

Producció executiva / Producción ejecutiva / Executive production

Lina Ubero Leticia González Mercedes Párraga

Disseny expositiu i gràfic / Diseño expositivo y gráfico / Exhibition and graphic design Naifactory Lab

Producció i muntatge expositiu / Producción y montaje expositivo/ Exhibition production and installation Grop Exposicions i Museografia, SL

Audiovisuals / Audiovisuales / Film production Kineina audiovisuals

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Adaptació lectura fàcil / Adaptación lectura fácil / Easy reading adaptation Associació Lectura Fàcil

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Amb la col·laboració de / Con la colaboración de / With the collaboration of

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