



POISON

10 october 2018 - August 2019

Palais de la découverte

30 living species - 750 m²

«This autumn, the Palais de la Découverte is out to thrill the public with an exhibition all about poison. Snakes and spiders of course, but also frogs, centipedes and more... a collection of around thirty species of the world's most dangerous living poisonous animals, brought together for the first time ever in France, will be on show to the public. The exhibition looks beyond the beauty of these creatures, the fascination (tinged with fear) that we all have for them and the dangerous poisons they produce, investigating the role that these substances play in scientific research, particularly medicine. We hope that it will attract a large number of visitors, at no risk to them of course, for endless encounters that are sure to prove as exciting as they are scary!» Bruno Maquart, chair of Universcience.

On show at the Palais de la Découverte from 10 October 2018 to 30 August 2019, the exhibition 'Poison' brings to the public some thirty living species of venomous and poisonous animals, including snakes, poison dart frogs and other poisonous frogs, lizards, spiders and arthropods. Kept in terrariums that reproduce their natural habitats, these species provide a fascinating insight into the role of poison in nature.

Yet, the active substances in the fearsome arsenal of the often deadly poisons produced by certain animals and plants are a complex blend of different chemicals which, when used under certain conditions, can become valuable medicines.

In addition to capitalising on the public's fascination with poisons and the animals that produce them, this exhibition shows how poisons can work in two ways, both to harm and to cure. Poisons have endless potential in scientific research, confirming the importance of protecting the natural world and its biodiversity.

Exhibition presentation

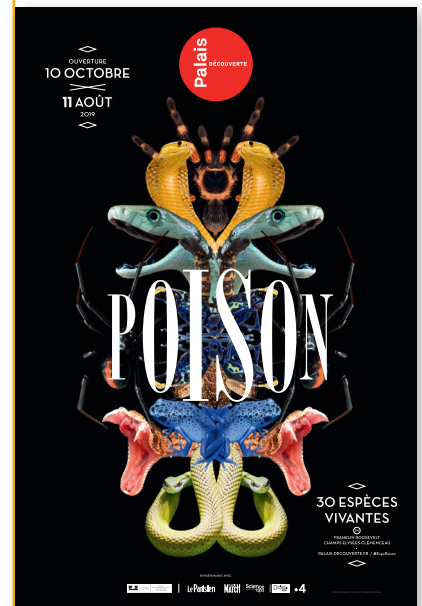
In quiet surroundings with subdued lighting, the public moves from terrarium to terrarium to look at the different poisonous and venomous species, learning how each administers its poison, either to attack or defend itself. In one terrarium, visitors will spot the bright warning colours of the poison dart frog, the tiny colourful frog found in rainforests in northern South America, whose skin exudes a deadly poison.

Further along, they will come to the salamanders, followed by the monkey frog, the golden poison frog from Colombia, the Oriental fire-bellied toad, and the Japanese fire belly newt. And there is no shortage of lizards and spiders either, with the Gila monster, the Kimberley rock monitor, the Mexican redknee tarantula, the black widow, and more... And not to mention the scorpion or poisonous centipede!

Poison: a priceless substance, in nature...

This unsettling menagerie – which visitors can view with peace of mind in complete safety – shows the public how precious poison is in the natural world. Most venomous animals need their venom to survive, either because they use it when hunting or because it protects them from potential predators. Consequently, they are careful not to waste their venom, because producing more takes a lot of time and energy.

In addition, many of the species featured in the exhibition display aposematism, the subject of the first documentary film that accompanies the exhibition. Through garish colours, disturbing noises, threatening behaviour and other warning signs, these animals signal to predators that they are dangerous, and this also helps them conserve their precious venom. The film also features striking images of predators using venom to hunt or attack and of antidotes being made.



Trilingual: French, English and Spanish

For adults and children from age 7.
An exhibition from the collections of Grupo Atrax

Poisonous or venomous?

The subtle difference lies in how the animal's poison is administered. If it occurs by ingestion or contact, the animal is poisonous. If it is from a sting or bite, then the animal is venomous.



Attention, science fraîche ! (Bringing you newly discovered science)

This thematic line features exhibitions dealing with advances in science and the impact they have, in both the physical world and the living world. It includes any scientific subject that opens up new knowledge of the world.

... and in the laboratory

The poison that animals and plants produce is not just useful to them, it is also of value to scientific research, which is increasingly turning to the active substances they contain to develop new treatments.

For example, the molecules extracted from some poison dart frogs may one day be used as analgesics 200 times more potent than morphine. And the venom from a Cuban scorpion has been used experimentally to selectively destroy cancerous cells. Other secretions are thought to have relaxing properties, or on the contrary could be used to stimulate the heart. Various toxins that animals employ to neutralise prey can rapidly prevent blood from clotting, reduce blood pressure and interfere with nerve impulses, and in these ways in particular, these kinds of molecules are regarded as potential allies in the medicine of the future.

The exhibition also features a remarkable collection of snakes, including the fearsome black mamba. French scientists have discovered that the venom produced by this species contains two proteins which they have called mambalgins. An important scientific discovery, they have been shown to have analgesic properties. Successfully tested in mice, these mambalgins are as effective as morphine but produce fewer side effects. In addition to the 30 species featured in the exhibition, to date some 4,900 species have been identified as being of interest to pharmacologists. Could they be the first of a new class of medicines?



In connection with the exhibition

■ Facilitation - Venoms and Toxins – from poison to drug

Poisons, venoms and toxins – many animals and plants produce them. What do they use them for? And how are they produced? Are poisons really as dangerous as we think they are? We may be frightened of them, but some can be useful to us in fundamental research, therapeutic applications and other fields too.

■ Talks - Venom, from weapon to medicine

From 10 November to 8 December 2018

Detailed programme available at palais-decouverte.fr

- The amazing diversity of ways in which venom is used, with Christine Rollard, araneologist and lecturer registered with the National Natural History Museum (MNHN), Paris.
- Arachnids: spiders, mites and more... our everyday companions, with Christine Rollard, araneologist and lecturer registered with the National Natural History Museum (MNHN), Paris.
- Medical uses of venoms, with Jean-Philippe Chippaux, doctor, PhD in public health, and director of research at the Institute of Developmental Research (IRD).
- Snake bites: how they are treated around the world, film showing and discussion featuring the documentary *Minutes to Die* (dir. James Reid).

■ Permanent centre for animal communication at the Palais de la Découverte

A dozen animals species including ants, rats and octopuses are on show, along with a host of interactive displays explaining how animal communication impacts on the search for food, reproduction, and much more...

Practical information

Palais de la découverte

avenue Franklin-Roosevelt - 75008 Paris
📍 Franklin Roosevelt ou Champs-Élysées Clemenceau

Public information

01 56 43 20 20

Opening hours

Every day except Monday from 9h30 am to 6 pm, and 7 pm on Sunday.

Admission rates

Full rate: €9 – reduced rate: €7 (over 65s, teachers, under 25s, large families and students).

→ Free for the under 6s, jobseekers and recipients of minimum social benefits, the disabled and their carers.

www.palais-decouverte.fr



MINISTÈRE DE LA CULTURE
MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR, DE LA RECHERCHE ET DE L'INNOVATION

Press information

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