

Panel 1

The aquarium: a French invention

In 1832, the Frenchwoman Jeanne Villepreux-Power, a passionate and self-taught naturalist, invented the first glass aquarium in order to study the cephalopod *Argonauta argo* (1) for her research.

In 1850, the Englishman Robert Warington, a chemist, and Philip Henry Gosse, a naturalist, developed the biologically balanced aquarium. These major advances led to the creation in London in 1853 of the first aquarium open to the public (2).

Mediterranean marine life was first exhibited at the Naples Marine Station in 1872(3).

When it was established in 1881, the Laboratoire Arago also set up a public aquarium, the first of its kind on the French Mediterranean coast (4).

Panel 2

The Public Aquarium of Banyuls: Origins

Professor Henri de Lacaze-Duthiers, founder of the marine station of Laboratoire Arago in 1882, sought to make marine biology accessible to a broader audience. In the same year, he established the aquarium of the Laboratoire Arago as an educational space where scientific discoveries and the observation of Mediterranean biodiversity were no longer reserved solely for scientists and students, but were also open to the general public.

“Tanks containing living species were placed within the window recesses, while others were illuminated artificially. At the centre stood a circular basin with a water jet and a plaster cast of the Venus de Milo. Along the walls were arranged busts of renowned scientists and thinkers.”
(*Genesis of a Scientific Library: Henri de Lacaze-Duthiers (1821–1901) and the Library of the Laboratoire Arago* at Banyuls-sur-Mer, Vincent Chappuis, 1992)

Two ceriantharians painted from life at the aquarium of Banyuls-sur-Mer, 1912, oil on canvas, by William Miaulet.

Panel 3

Public Aquariums as a Source of Inspiration for Artists

Jean Francis Auburtin produced in 1898 a monumental painting entitled *The Seabed (Le fond de la mer)* for the zoology amphitheatre of the Sorbonne University. To prepare this work, he stayed at several marine stations in order to observe marine fauna and flora directly. During the summer of 1897, he made numerous sketches in Banyuls-sur-Mer, particularly at the aquarium of the Laboratoire Arago.

Panel 4

Trompe-l'œil

Panel 5

The Public Aquarium of Banyuls from 1950 to 2017: Transformations and Developments

In 1949, following the Second World War, the Association of the Friends of the Aquarium modernized the facility and transformed it into the Museum of the Sea. A visitor trail was designed, and the tanks showcasing the various underwater biotopes of the Catalan coastline. The decorative settings were created by a specialist from the Trocadéro Aquarium.

The aquarium welcomed several generations of visitors until its closure in 2016. Considered too dilapidated to be preserved, the original structure was eventually decommissioned. Today, the site has been converted into a series of experimental and research areas used by the staff of the observatory.

Panel 6

Public Aquariums as a Source of Inspiration for Artists

Dom Robert was a Benedictine monk and tapestry designer renowned for his large-scale tapestries exhibited at the Musée Dom Robert. Following a period of observation at the aquarium of the Laboratoire Arago, he created in 1961, from his sketchbooks and notes, the tapestry *Garden of Mermaids* (*Jardin de sirènes*, 200 × 280 cm), composed of corals, fish, starfish, and other marine organisms.

Panel 7

The Historic Research Aquarium of the Laboratoire Arago

Since its creation, the Laboratoire Arago has also housed a research aquarium reserved for scientific staff in order to study marine organisms. By controlling or modifying the conditions in which the animals are kept, researchers have elucidated numerous biological mechanisms.

As early as 1888, Professor Henri de Lacaze-Duthiers presented at the Sorbonne University his findings on octopus behaviour. Following the introduction of electricity around 1900, he published a study on the response of a sea anemone to artificial light.

Later, in 1995, it was through aquarium-based experiments that researcher Sigurd von Boletzky published his work on the planktonic life of the octopus in the prestigious scientific journal *Nature*.

Panel 8

Tell Us About “Your” Banyuls Aquarium

For generations, the inhabitants of Banyuls-sur-Mer and their children have enjoyed visiting the aquarium of the Laboratoire Arago. Among the many testimonies collected, this one comes from Albert Sagols, a native of Banyuls who beautifully depicted scenes of local life in his illustrated notebooks.

Panel 9

Through the Walls

Panneau 10: The Biodiversarium Aquarium Today

Opened in November 2017, the Biodiversarium Aquarium replaces the historic Banyuls Aquarium. Together with the Mediterranean garden at Mas de la Serre, it forms a scientific and cultural centre dedicated to showcasing the marine and terrestrial biodiversity of the Pyrénées-Orientales region, as well as the activities of the Banyuls Oceanological Observatory. In France. The Biodiversarium Aquarium is part of the Union des Conservateurs d'Aquariums network and, at the European level, belongs to the European Union of Aquarium Curators.

Panneau 11: Building the Biodiversarium Aquarium

The Biodiversarium Aquarium presents local marine species within carefully recreated habitats. Species are grouped according to their compatibility in order to reproduce true living seascapes, faithful to what divers can observe all along the Pyrénées-Orientales coastline. The aquarium displays were created by specialists, including artists involved in producing the latest replica of the Lascaux Cave. These settings were crafted in sprayed concrete using photographs taken in natural environments as reference material.

Panneau 12: The Research Aquarium Today

Today, the research aquarium is far larger than the historic experimental facilities. More than twenty rooms dedicated to breeding and experimentation are now available for both in-house and visiting research teams. Within these spaces, numerous tropical and Mediterranean marine organisms are bred and studied.

This innovative facility is part of the European Marine Biological Resource Centre (EMBRC) network. Today, the nine aquarists working in both the public aquarium and the research aquariums of the Banyuls Oceanological Observatory are united within a single department: the Shared Aquariology Service.

Panneau 13: Innovative Technologies Serving Aquariology

The techniques now used to keep animals in the best possible conditions can be remarkably sophisticated. Multicoloured LED lighting systems recreate natural light with great accuracy, while computers connected to the aquariums continuously monitor water quality parameters. All seawater used within the building is filtered and sterilised before being returned to the sea, preventing contamination by exotic species. The public aquarium now operates using a closed-loop filtration system that ensures exceptionally high water quality.

Panneau 14: Animals “Just Passing Through” Our Aquariums

Many of the animals displayed in the public aquarium are collected from the wild. Most of them — especially the fish — stay in the tanks only for a limited time. Collected at the juvenile stage, they are released back into the sea after one or two years, depending on the species. During their stay, these animals serve as ambassadors for their species, helping visitors discover marine biodiversity.

In the research aquarium, most of the animals housed are bred in captivity.

Panneau 15: Breeding Marine Animals in Aquariums: A Daily Challenge!

Breeding Mediterranean and tropical marine animals in aquariums is no easy task. The entire reproductive cycle must be successfully completed, and raising the larvae of target species often represents the greatest challenge.

Thanks to improvements in phytoplankton and zooplankton culture techniques, together with complete control of water quality, the full life cycle of new species is now achieved every year. As a result, successive generations of captive-bred marine animals are produced within the research aquarium of the Banyuls Oceanological Observatory.

Panneau 16 : Animal Welfare in Aquariums

Today, one of the major concerns of aquarists is ensuring the welfare of the species housed in aquariums. Optimal nutrition, respect for natural day–night cycles, enriched environments and appropriately sized tanks all form the basis of the breeding programmes carried out in our facility.

The establishment holds official accreditations both for the public presentation of Mediterranean species and for research involving animal experimentation. Thanks to the meticulous work of aquarists, supported daily by a specialised veterinarian, this commitment to animal welfare has made it possible to achieve breeding successes that were previously unattained.

Panneau 17 : Aquariology — An Increasingly Essential Tool for Scientific Research

Research carried out at the Banyuls Oceanological Observatory through the Shared Aquariology Service covers a wide range of subjects, including the impact of sunscreens on coral reefs, the effects of climate change on marine species and ecosystems, the biological cycles of fish and marine invertebrates, and the study of genes involved in the development of certain organs.

These diverse topics inspire scientists at the Observatory and their collaborators both nationally and internationally. Each year, this research is published in leading international scientific journals.

Panneau 18: Aquariums, Animals and Passionate Aquarists

Trained in aquariology or aquaculture, the aquarists of the Biodiversarium and the research aquarium possess strong expertise in marine biology and ecology, nutrition, disease treatment and animal welfare. By applying all of these skills, they are able to maintain the aquarium animals in excellent conditions.

Within the public aquarium, scientific mediators help visitors and school groups to discover the secrets of the marine biodiversity of the Pyrénées-Orientales region.

Panneau 19

Scientific research, conservation of endangered species, environmental education for visitors and school groups — you now know the many roles of public and research aquariums, the focus of this L'Art' Cherche 2026 exhibition!

To learn more, discover Mediterranean marine biodiversity and explore the activities of the Banyuls Oceanological Observatory, visit the Biodiversarium Aquarium, the shop and the mediterranean garden.

Panel 20: In a Few Words...

Aquariology — not to be confused with hobby fishkeeping, which mainly involves keeping aquatic animals for decorative purposes — is a rapidly developing science that makes possible to observe, study and breed aquatic organisms under controlled conditions.

Whether for scientific outreach, research, artistic inspiration or endangered species conservation programmes, aquariums — both public and research facilities — have played an important role in our society for decades.

By raising public awareness of marine and aquatic environments, while also enabling scientific studies on species and ecosystems that would be impossible to conduct in the wild, aquariums have become essential tools for understanding seas, oceans and aquatic environments more broadly.

Innovative technologies, specialized nutrition, control of breeding cycles and animal welfare are among the major challenges facing the science of aquariology today.

Public aquariums began to appear in Europe at the end of the 19th century. Among these historic institutions, the Banyuls Aquarium — inseparable from the Arago Laboratory (now the Banyuls Oceanological Observatory, OOB) and today represented by the Biodiversarium Aquarium and the OOB research aquariums — has always held an important place in the history of our institute.

For more than 140 years, it has served both as an open window of our marine station and as a unique scientific tool through which researchers develop innovative studies on marine species and environments, in a context of increasing human pressures and environmental change.

This exhibition explores the evolution of aquariology since the 19th century and reveals the many — and sometimes unexpected — uses of aquariums by the researchers and by the aquariology and scientific outreach teams of the Banyuls Oceanological Observatory.