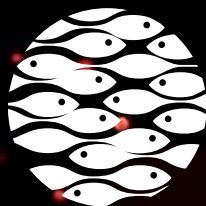


**ANNUAL REPORT**  
O C E A N Á R I O D E L I S B O A

**2022**



**Oceanário de Lisboa**



**OCEANO AZUL**  
fundação

2022



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### SHAREHOLDER

Oceano Azul Foundation, a non-profit legal entity under Portuguese private law whose purpose is to contribute to the conservation and sustainable use of the ocean.



### CORPORATE BODIES

#### BOARD OF THE GENERAL ASSEMBLY

##### Chairman

Tiago Ferreira Lemos

##### Secretary

Nuno de Deus Pinheiro

#### BOARD OF DIRECTORS

##### Chairman

José Soares dos Santos

##### Members

João Falcato Pereira

Tiago Pitta e Cunha

Pedro Veloso

Pedro Curto Simões [until 11 March 2022]

Vera Catarino [since 31 March 2022]

#### STATUTORY AUDITOR

##### Permanent

DELOITTE & ASSOCIADOS, SROC S.A. represented by  
Jorge Carlos Batalha Catulo

##### Substitute

João Carlos Henriques Gomes Ferreira

## VISION

Ocean conservation is a responsibility shared by all.

## MISSION

To encourage people to learn more about the oceans and make all citizens aware of their duty to conserve their natural heritage, by changing their behaviour.



**JANUARY**

Voted top consumer's choice brand in the category "leisure and entertainment facilities in lisbon"



Micas the sea otter died on 27 january, aged twenty years

New leopard sharks in the pacific habitat



Happy week campaign with 5,755 beneficiaries



# 2022

## MONTH BY MONTH

**MARCH**

Rescue of endangered seahorses at trafaria

Award for best theme park in the "portugal trade awards by publituris @btl 2022"

Campaign offering special conditions attracts 2,522 elderly visitors



**MAY**

Launch of new ecotourism programme on board a historic tall ship, the Santa Maria Manuela



**FEBRUARY**

Launch of a new online magazine for teachers

## Um oceano para ensinar

Collaboration on recovery of marine life in tróia



New species, broadnosed pipefish (syngnathus typhle) in the seagrass meadows aquarium

Happy week campaign with 19,653 beneficiaries

**APRIL**

After two years during which activities were suspended, in-person holiday programmes resumed at the oceanário de Lisboa



New communication campaign to attract visitors



Oceanário de Lisboa website helps improve blue literacy with new online content

**JUNE**

20 Events held at the oceanário de lisboa during the united national ocean conference



New business area offers visitors chance to buy a photograph as a souvenir of their visit

Extinction risk assessment of 98 species of deep sea eels, of gobies and blenies at in-person workshops

**OCTOBER**

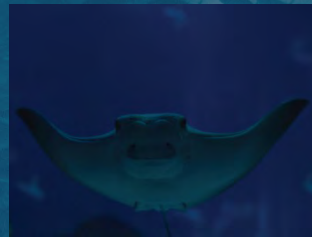
Teachers' open day offering training on climate change



New programme takes school groups to the seaside, to discover biodiversity in the intertidal zone



New cownose rays (rhinoptera bonasus) in central aquarium



**DECEMBER**

Red book of fishes of Portugal: assessing extinction risk of 100 species in deep sea orders

Renovation of control room and operation of centralised technical management systems



**JULY**

Launch of new feels like home communication campaign



New point of sale for the oceanário de lisboa products at airport

**AUGUST**

Ticket prices revised as from 1 august

New zebra sharks (stegostoma trigrinum)



**SEPTEMBER**

New sustainability training programme offered to companies



Happy week campaign for visitors up to 25 years old with 32,983 beneficiaries

**NOVEMBER**

Success in recreating reproductive cycle of corals



Winner of global remarkable venue awards 2022

New species tagus river jelly (catostylus tagi) in the atlantic gallery

Free child's ticket campaign benefits 27,249 visitors

# 2022

## THE YEAR IN REVIEW

### THE AQUARIUM

#### VISITORS

**1 254 856** (up 115% on 2021)  
the largest ever number of Portuguese visitors

#### EXHIBITIONS

NEW ANIMALS

#### NEW BUSINESS AREA

VISITOR PHOTOGRAPHS

#### SHOP

**99%** SUSTAINABLE PRODUCTS

#### VISITOR SATISFACTION INDEX

**90%**

#### PERCEPTION AS CONSERVATION INSTITUTION

**36%** (up 1% on 2021)

#### AWARDS AND ACCOLADES

BEST THEME PARK AWARD FROM PUBLITURIS  
CONSUMER'S CHOICE TOP BRAND  
"MOST REMARKABLE VENUE" IN THE WORLD FROM TIQETS

#### OPERATING REVENUE

**22,2 M€** (up 158% on 2021)

#### NET INCOME

**4,5 M€** (up 7.3M€ on 2021)  
the best ever financial result

#### INVESTMENT IN FACILITIES

**0,8 M€** (up 0.6M€ on 2021)





## CONSERVATION AND SCIENCE

### CENTRE FOR SPECIES SURVIVAL

RED BOOK OF MARINE FISHES OF PORTUGAL

ASSESSMENT OF EXTINCTION RISK OF SPECIES IN COLLECTION

### BREEDING OF BONY FISHES

**29** SPECIES STUDIED

**4** NEW SPECIES SUCCESSFULLY BRED IN 2022

### BREEDING OF CORALS

**5** SPECIES STUDIED

NEW EQUIPMENT FOR EMBRYOGENESIS AND SETTLEMENT STAGES

### ANIMALS PROVIDED TO 6 PUBLIC AQUARIA IN EUROPE

### 16 EUROPEAN BREEDING PROGRAMMES

### CONTRIBUTION TO SCIENCE

PARTICIPATION IN **7** SCIENTIFIC STUDIES

**5** SCIENTIFIC PUBLICATIONS

**12** PAPERS PRESENTED AT SPECIALIST CONFERENCES

**2** COLLABORATION WITH 2 MASTER'S DEGREE COURSES

### IN SITU CONSERVATION

**139 THOUSAND EUROS** IN FUNDING FOR PROJECTS

CONSERVATION PROJECTS IN PROGRESS **10**

## EDUCATION AND AWARENESS RAISING

### PARTICIPANTS IN EDUCATIONAL ACTIVITIES

**76 624** (up 482% on 2021)

### NEW CORPORATE TRAINING PROGRAMME

PORTUGAL, INDIA, BRAZIL, SPAIN, PERU, AUSTRALIA AND NEW ZEALAND

### NEW ONLINE EDUCATIONAL ACTIVITIES

**30 000** VIEWS AND **2 000** SUBSCRIBERS

### VIEWS OF OCEANÁRIO VIDEOS

**12,2 M** (up 572% on 2021)



## BACKGROUND

2022 was a challenging year for the economy, which faced issues relating to adjustment of global logistical chains and new problems resulting from the war in Ukraine, with a severe impact on the energy and food sectors worldwide, pushing inflation to higher levels than in previous years.

Despite this troubled environment, the tourism sector, which had been significantly affected by the pandemic, enjoyed a strong upturn, recovering quickly over the course of the year, after what was still a very slow start to the year.

2022 confirmed that the Oceanário de Lisboa had made good use of the difficult years of the pandemic to learn new ways and fresh strategies able to attract Portuguese visitors.

These strategies were fundamental in making 2022 the best year ever for Portuguese visitors, and in setting a new record for financial results.



# THE AQUARIUM

## EXHIBITIONS

The Oceanário de Lisboa remained focused in 2022 on ensuring the welfare of the animals and the quality of the collection and exhibitions, working to implement techniques to maintain and breed species, to make necessary improvements to its visual appeal and to provide veterinary care, to the highest international standards.



## NEW ANIMALS IN THE COLLECTION

### ZEBRA SHARKS (*STEGOSTOMA TIGRINUM*)

Introduction of two zebra sharks to the central aquarium. These animals were born in the Nausicaa aquarium in France.

### LEOPARD SHARKS (*TRIAKIS SEMIFASCIATA*)

Three new leopard sharks, born at the Nausicaa aquarium in France, have been introduced to the Pacific habitat.

### COWNOSE RAYS (*RHINOPTERA BONASUS*)

A group of cownose rays has joined the central aquarium; they were born at the SeaLife aquarium in Porto and the Rotterdam Zoo Aquarium and were given to Oceanário de Lisboa under the breeding programmes of the European Association of Zoos and Aquaria.

### BROADNOSED PIPEFISH (*SYNGNATHUS TYPHLE*)

A group of animals of this species, native to seagrass meadows along the Portuguese coast, was added to the “Seagrass Meadows” aquarium in the Atlantic Gallery. The introduction of these new animals (and the provision of other individuals to public aquaria in Europe) was made possible by the development of breeding techniques for this species.

### RINGED PIPEFISH (*DUNCKEROCAMPUS DACTYLIOPHORUS*)

Thanks to breeding efforts at the Oceanário de Lisboa, seven tropical bandfish were added to the collection.

### TAGUS RIVER JELLYFISH (*CATOSTYLUS TAGI*)

The reproductive cycle for this species was successfully completed in 2022, in a project which started in 2019, enabling several individuals to be added to the exhibition.

---

### SEA OTTER “MICAS”

Micas, the sea otter and one of the most charismatic and best loved inhabitants of the Oceanário de Lisboa, died on 27 January. Born at the Oceanário de Lisboa, and daughter of the iconic sea otters Amália and Eusébio, she was 20 years old; her death, which was expected because of her advanced age, was due to natural causes.



# FACILITIES

**Ongoing and careful maintenance of infrastructures and equipment is fundamental for ensuring the quality of the facilities, the exhibitions, the technical and working areas, as well as the visitors' areas and other public spaces. Work was conducted on several fronts in 2022, including two major renovation projects, essential for providing suitable and efficient facilities.**

## **NEW DENITRIFICATION SYSTEM**

A new denitrification system was designed and built in 2022. This involved various teams and input from specialists, and made a fundamental and significant contribution to improving the water quality in the four habitats and the central aquarium at the Oceanário de Lisboa.

## **RENOVATION OF CONTROL ROOM AND OPERATION OF CENTRALISED TECHNICAL MANAGEMENT SYSTEMS**

The Building Management System (BMS) room is one of the key technical hubs for operating and controlling life support systems at the Oceanário de Lisboa. This room is where staff monitor key variables for the correct functioning of the systems, such as water temperature, filtration flows and the water disinfection level. It is also where energy and drinking water consumption are managed, using a monitoring system able to detect deviations quickly, so as to optimise the use of resources.

The refurbishment included not only changes to the architecture and furniture, but also significant changes to lighting, ventilation and interior air quality. This has provided a revamped and modernised environment offering improved working conditions and able to welcome external visitors.



# VISITORS

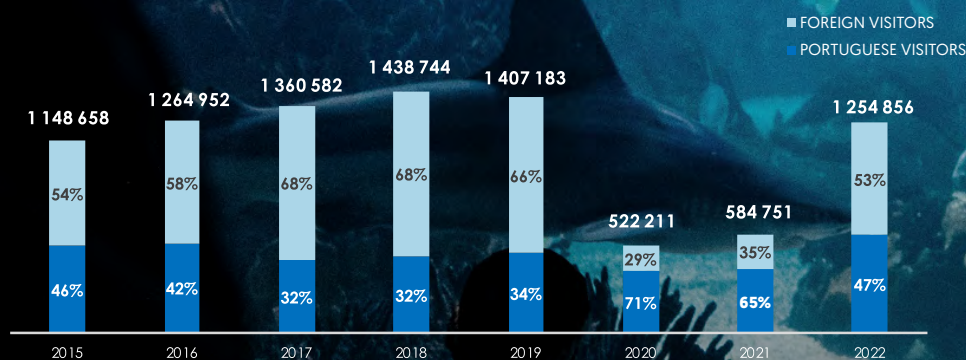
## 1 254 856 [UP 115% ON 2021]

2022 saw the end of the pandemic and gradual growth in the number of visitors to the Oceanário de Lisboa.

Foreign visitors totalled 667,568, representing growth of 226% in relation to 2021, although still 28% lower than the number recorded in 2019.

The number of Portuguese visitors continued to present excellent growth, thanks to a marketing strategy based on targeted campaigns, with the aim of maximising impact on different sectors of the public. The number of Portuguese visitors was 587,288, corresponding to growth of 60% over the previous year and up 22% on 2019.

As a result of these efforts, the total number of visitors was up by 115% on 2021, although still 11% down on total visitor numbers in 2019. These visitor figures made it possible to generate very positive financial results, which were the best ever recorded.



90%

### VISITOR SATISFACTION INDEX

This index assesses visitor satisfaction from different angles, such as overall satisfaction with the visit, warmth of welcome, waiting times, quality of facilities and the information provided,

36%

### PERCEPTION AS CONSERVATION INSTITUTION

of visitors perceive the Oceanário de Lisboa as a conservation institution, up by 1% on the previous year.

97%

### ATTAINMENT OF MISSION

of visitors consider that the Oceanário de Lisboa achieves its mission of "Promoting knowledge of the oceans, raising the public's awareness of the duty to conserve our natural heritage by changing their behaviour". This figure is unchanged in relation to the previous year.

## VISITOR PHOTOGRAPHS | NEW BUSINESS AREA

A new business area started up in June 2022, offering visitors the chance to take home a personalised souvenir, in the form of a photograph of their visit to the Oceanário de Lisboa. This venture is complemented by a guide designed to bring visitors closer to the natural world, offering more than 15 suggestions of places to visit and where to explore the natural side of the Lisbon and Tagus Valley region.



## SHOP

### SUSTAINABLE PRODUCTS

Sustainability standards for collections and products featured in the shop have made it possible to create high quality merchandising, while also generating production and sustainability know-how. This has resulted in a diversified sustainable portfolio, in particular as regards new categories, products and design, as well as wider distribution and the addition of new points of sale and display, both in Portugal and abroad, which will enable this sector to boost its capacity for growth.

## REVISED TICKET PRICES

In a year marked by continued economic uncertainty, the Oceanário de Lisboa's main challenge was to adjust its sales policy, and above all its pricing, in order to attract visitors.

The Oceanário de Lisboa continued to offer four types of tickets in 2022, and set the ticket prices as follows:

	AS FROM 01.AUG.2022
0 - 2 year	Free
3 - 12 years	15 €
13 - 64 years	22 €
+ 65 years	17 €





# MARKETING CAMPAIGNS

In order to attract visitors, marketing campaigns were aimed at specific target groups, such as children, young people, families or grandparents. This met with a very positive response from the public, leading to an expectation of potentially creating habits of regularly visiting the Oceanário de Lisboa, making it a possible contender when deciding on leisure activities or family outings.



**5.755**  
BENEFICIARIES  
**HAPPY-WEEK CAMPAIGN RECORDS**  
WITH AVERAGE PRICE OF 11.26€ PER VISITOR



**19.653**  
BENEFITS  
**HAPPY-HOUR CAMPAIGN**  
WITH AVERAGE PRICE OF 8.13€/VISITOR



**27.249**  
BENEFITS  
**FREE CHILDREN'S TICKET CAMPAIGN**  
VISITORS WITH AVERAGE PRICE OF 9.99€/VISITOR



**2.522**  
ELDERLY VISITORS  
**CAMPAIGN OFFERING SPECIAL CONDITIONS**  
VISITORS WITH AVERAGE PRICE OF 4.54€/VISITOR



**32.983**  
BENEFICIARY  
**HAPPY-HOUR CAMPAIGN**  
OFFERS AN AVERAGE PRICE OF 7.97€/VISITOR

# UNITED NATIONS OCEAN CONFERENCE

**OCEANÁRIO DE LISBOA WELCOMES POLITICAL DECISION-MAKERS, LEADING FIGURES AND RESPECTED INTERNATIONAL EXPERTS IN THE FIELD OF OCEAN CONSERVATION**



Some 20 fringe events and meetings were held at the Oceanário de Lisboa during the Ocean Conference, offering the chance to share expertise and debate key issues for ocean conservation.

The Oceanário de Lisboa was also honoured to welcome the French President, Emmanuel Macron, Olivier D'Arvor, the French Ambassador for Polar and Marine Issues, Aulani Wilhelm, a White House specialist in the field of ocean conservation, Princess Victoria of Sweden and Prince Albert of Monaco, Sylvia Earle [Mission Blue], Imani Fairweather Morrison [Oak Foundation], Monica Verbeek [Seas at Risk] and Enric Sala [National Geographic – Pristine Seas].

The welcome reception, hosted by the Oceano Azul Foundation, celebrated the start of the Ocean Conference and brought together more than 400 guests and partners, who were reminded of the need for urgent action to defend the world's oceans, in speeches from the Portuguese President, Marcelo Rebelo de Sousa; Ambassador Peter Thomson, United Nations Special Envoy for the Ocean; the Portuguese Minister for Education, João Costa; the CEO of Oceano Azul Foundation, Tiago Pitta e Cunha, and also Sylvia Earle.





# AWARDS, ACCOLADES, CERTIFICATIONS AND ACCREDITATIONS

## BEST THEME PARK AWARD

The Oceanário de Lisboa received the award for “Best Theme Park” in the “Portugal Trade Awards by Publituris @ BTL 2022”, which seek to reward outstanding achievements in tourism in Portugal.

## CONSUMER’S CHOICE TOP BRAND

The Oceanário de Lisboa was again voted by Portuguese consumers to be “Consumer’s Choice Top Brand”, in the category for “Family Leisure and Entertainment Venues – Lisbon”, with an overall score of 86.61%. The results of this contest show that the Oceanário de Lisboa remains the favourite brand of consumers in its category.

## “MOST REMARKABLE VENUE” IN THE WORLD FROM TIQETS

The Oceanário de Lisboa was the overall winner in the “most remarkable venue” category of the Remarkable Venue Awards, for the world’s finest museums and attractions. Tiqets is an international online booking and ticketing platform for museums, experiences and arts venues. The competition included museums and experiences in Germany, the United Arab Emirates, Spain, the United States, France, Italy, the Netherlands, Portugal and the United Kingdom. The winners were chosen by the votes of consumers around the world.



## CERTIFICATIONS AND ACCREDITATIONS

The Oceanário de Lisboa’s development strategy entails running an Integrated Quality and Environmental Management System, certified under international regulations, enabling it to maintain its certifications and accreditations.



## EMAS ENVIRONMENTAL STATEMENT

The Oceanário de Lisboa provides information to all stakeholders on its environmental policies, procedures and practices, as a key element for reporting results of its environmental performance. This statement is a mandatory requirement for registration with EMAS, and all the information was audited and verified by SGS and the Portuguese Environment Agency.

# CONSERVATION AND SCIENCE

## CENTRE FOR SPECIES SURVIVAL

The Oceanário de Lisboa has been, since 2021, a member of the international network of Centres for Species Survival of the International Union for Conservation of Nature (IUCN SSC). This is a network of ten zoos, over five continents, working together for conservation.

The team of Species Survival Officers at the Oceanário de Lisboa works with the Marine Biodiversity Unit on global assessments of the extinction risk of marine species, with a special focus on species not yet assessed and represented in the collection of the Oceanário de Lisboa. In 2021 this team started work on producing the Red Book of Marine Fishes of Portugal.

## RED BOOK OF MARINE FISHES OF PORTUGAL

The Oceanário de Lisboa and the Oceano Azul Foundation, in collaboration with the Institute of Nature Conservation and Forests (ICNF) and support from Lisbon Municipal Council, is developing the new Red Book of Marine Fishes of Portugal. This project will result in a public document with the best available information on the extinction risk of around 1,050 species of marine fishes living in Portuguese waters.

Since the assessment work started, 300 national preliminary evaluations of Portuguese marine fishes have been concluded, summarising the information on taxonomy, distribution, population, habitat and ecology, threats and conservation measures found in scientific articles and reports. Five workshops have also been held, two online and three in-person, at which 18 researchers from eight institutions in mainland Portugal, the Azores and Madeira assessed 263 of these species.

#### ASSESSMENT WORKSHOP ON DEEP-SEA EELS

assessed 43 deep sea species belonging to the order of Anguilliformes.

#### ASSESSMENT WORKSHOP ON GOBIES AND BLENIES

assessed 55 species belonging to the orders of Gobiiformes and Blenniiformes.

#### ASSESSMENT WORKSHOP ON MULLET

assessed 4 species belonging to the order of Mugiliformes.

#### ASSESSMENT WORKSHOP ON OPAHS AND KING OF HERRINGS

assessed 8 species belonging to the order of Lampriformes.

#### ASSESSMENT WORKSHOP ON DEEP-SEA SPECIES

assessed 100 deep sea species belonging to the order Notacanthiformes.



## ASSESSMENT OF EXTINCTION RISK OF MARINE SPECIES

The partnership with the International Union for Conservation of Nature (IUCN) is intended to contribute to assessing the extinction risk of 20,000 marine species for inclusion on the IUCN Red List of Threatened Species. One of the aims is to assess the extinction risk of all species represented in the collection of the Oceanário de Lisboa. As a result of this work, by 2022 the Oceanário de Lisboa had made a significant contribution to assessment of 69% of the species found in the collection.

#### ASSESSMENT WORKSHOP ON SPECIES FROM THE GALAPAGOS ARCHIPELAGO

assessed 80 species of fish and 24 species of sponges.

The Oceanário de Lisboa took part in and supported the assessment working on endemic and quasi-endemic species of the Galapagos archipelago, organised by the IUCN, Galapagos Conservancy and the Galapagos National Park, and headed by the Marine Biodiversity Unit.

## CONSERVATION AND SCIENCE

# BREEDING OF MARINE SPECIES

The Oceanário de Lisboa contributes to the conservation of marine biodiversity, by promoting knowledge of reproductive processes. A new dedicated team working exclusively on the reproduction of marine species has sharpened the organisation's focus on this area, advancing the development of processes, techniques and expertise. The team's success has enabled the Oceanário de Lisboa to pioneer the breeding of several species.

## BREEDING OF BONY FISHES

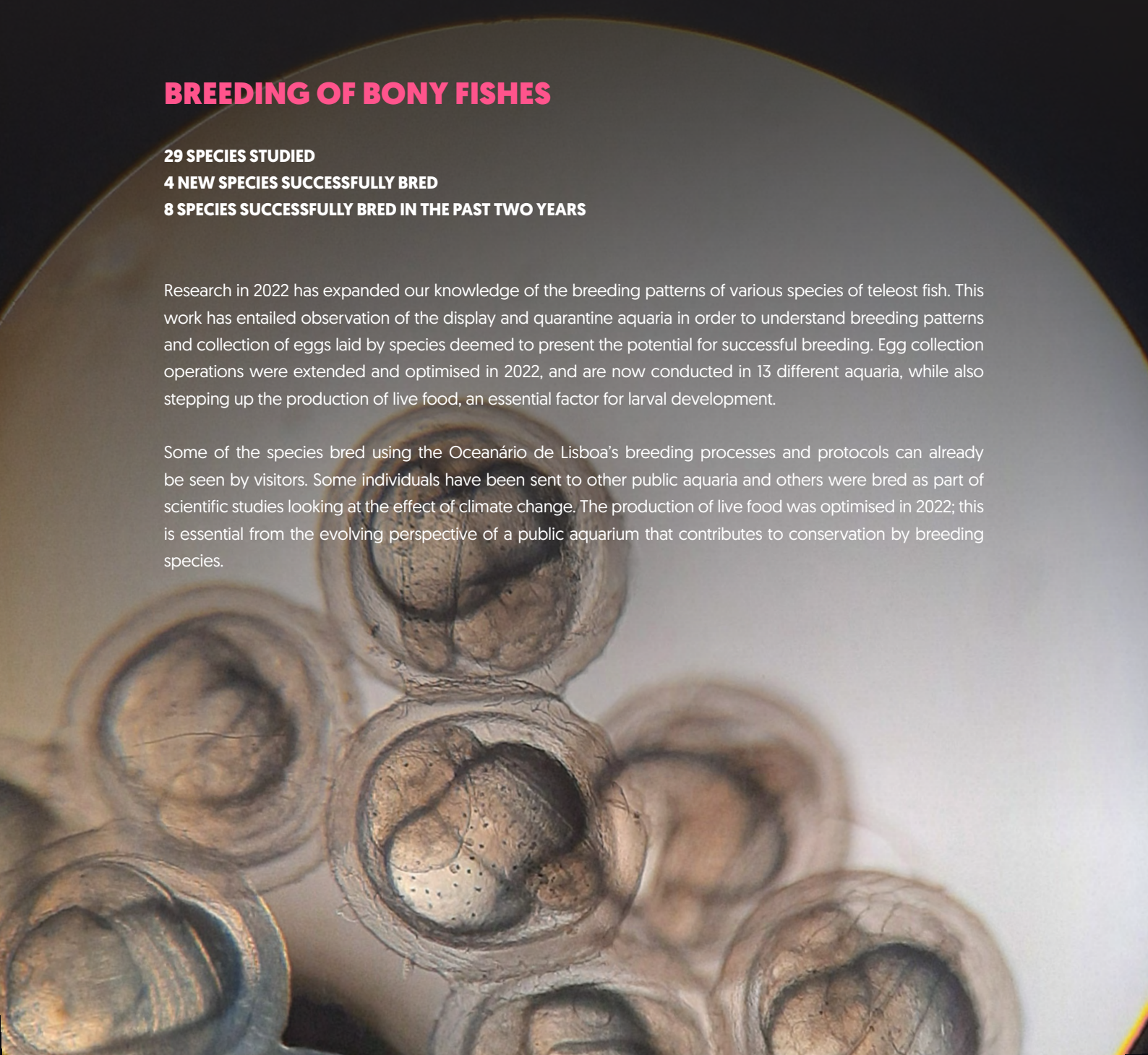
**29 SPECIES STUDIED**

**4 NEW SPECIES SUCCESSFULLY BRED**

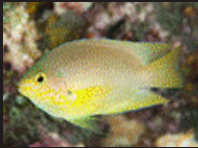





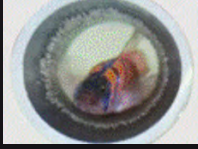


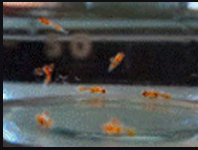


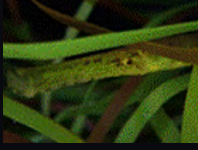

**8 SPECIES SUCCESSFULLY BRED IN THE PAST TWO YEARS**

Research in 2022 has expanded our knowledge of the breeding patterns of various species of teleost fish. This work has entailed observation of the display and quarantine aquaria in order to understand breeding patterns and collection of eggs laid by species deemed to present the potential for successful breeding. Egg collection operations were extended and optimised in 2022, and are now conducted in 13 different aquaria, while also stepping up the production of live food, an essential factor for larval development.

Some of the species bred using the Oceanário de Lisboa's breeding processes and protocols can already be seen by visitors. Some individuals have been sent to other public aquaria and others were bred as part of scientific studies looking at the effect of climate change. The production of live food was optimised in 2022; this is essential from the evolving perspective of a public aquarium that contributes to conservation by breeding species.



**SPECIES OF TELEOSTS SUCCESSFULLY BRED AT THE OCEANÁRIO DE LISBOA IN THE PAST TWO YEARS**

SPECIES	ADULTS	LARVAE	JUVENILES
<i>Amblyglyphidodon aureus</i>			
<i>Dunckerocampus dactylionhorus</i>			
<i>Hippocampus hippocampus</i>			
<i>Lythryonus dalli</i>			
<i>Labrus bergylta</i>			
<i>Nautichthys oculofasciatus</i>			
<i>Syngnathus acus</i>			
<i>Syngnathus typhle</i>			

## CONSERVATION AND SCIENCE

### BREEDING OF CORALS

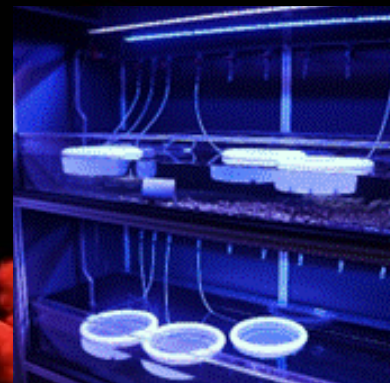
#### 5 SPECIES STUDIED

Coral reefs are severely threatened by climate change, and research conducted in controlled conditions is an important contribution to the conservation of species making up the reefs.

The Oceanário de Lisboa started a project in 2021 for sexual reproduction of corals, with the aim of increasing the number of species where it is possible to induce the release of gametes, fertilisation and settlement of larvae in a controlled environment. This is a recently developed technique, making it possible to conduct scientific studies which previously depended entirely on obtaining gametes from release events in the natural environment.

#### BREEDING OF TROPICAL CORALS

In 2022, our teams pressed ahead with the work started in the previous year and testing commenced with a new species of tropical coral. The results achieved in the various stages of the process were significant better than in the previous year, both in fertilisation and settlement rates, and in rates recorded for obtaining primary polyps. Significant factors in this success were the know-how acquired and the purchase and use of a new system, for the embryogenesis and coral settlement stages.



***Purple Tipped Acropora (Acropora tenuis)***

***Staghorn Coral (Acropora millepora)***

***Lesser Star Coral (Goniastrea palauensis)***

#### BREEDING OF CORALS FROM THE PORTUGUESE COASTAL AREA

The project for sexual reproduction of corals was extended in 2022 to include temperate coral species from the Portuguese coast. Research focussing on two different species of gorgonians is currently under way, as a contribution to the HABMAR project, undertaken by the Centre for Marine Sciences of the University of the Algarve [CCMAR].

***Pink Sea Fan (Eunicella verrucosa)***

***Gray's Sea Fan (Paramuricea grayi)***

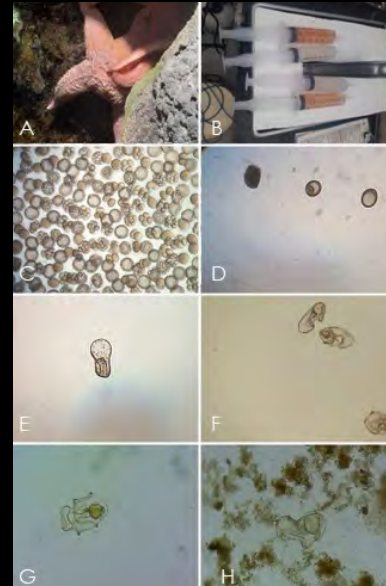


## BREEDING OF OTHER INVERTEBRATES

### BREEDING OF PACIFIC COASTAL STARFISH

Starting from 2013, hundreds of starfish of different species started to appear along the Pacific coast with necrosis, ulcers and tissue inflammation. It is not yet known what pathogenic agent is causing the so-called sea-star wasting syndrome.

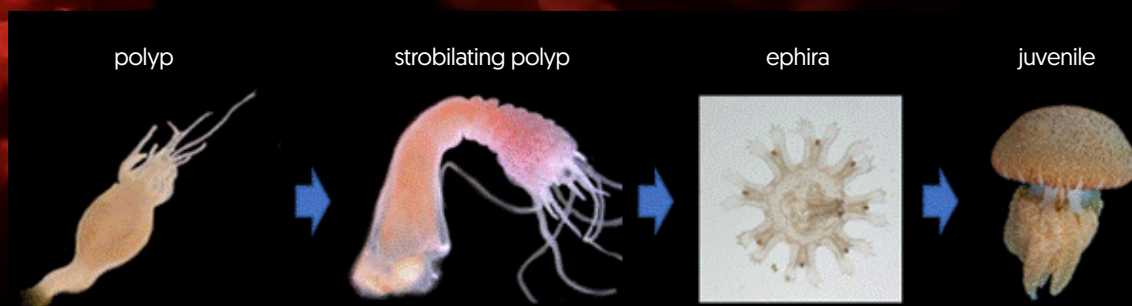
A number of breeding trials have been conducted for the first time with short-spined sea stars (*Pisaster brevispinus*), with encouraging results for the future success of their breeding process. Breeding these species may potentially contribute actively to conservation and increased knowledge of species that are vanishing from the wild at a worrying rate.



### BREEDING OF TAGUS RIVER JELLY (CATOSTYLUS TAGI)

Research has been proceeding since 2019 into the life cycle of *Catostylus tagi*, and breeding and rearing techniques have been perfected, making it possible to conclude the breeding cycle for the first time in 2022.

This work, conducted in partnership with other research institutions, has enabled the Oceanário introduce several individuals to its displays and led to publication of a scientific article – “*Catostylus tagi* life cycle and first insight into its ecology”.



## CONSERVATION AND SCIENCE

### BREEDING OF CARTILAGINOUS FISHES

There are several species of shark, ray and chimaera with which the Oceanário de Lisboa has been working in recent years with a view to successful breeding. A number of births have been achieved since 2017, including

- | Spotted ratfish (*Hydrolagus colliei*)
- | Southern Stingray (*Hypanus americanus*)
- | Ribbontail stingray (*Taeniura lymma*)
- | Common Eagle Ray (*Myliobatis aquila*)
- | Pyjama Shark (*Poroderma africanum*)
- | Port Jackson Shark (*Heterodontus portusjacksoni*)

### PARTICIPATION IN 16 EUROPEAN BREEDING PROGRAMMES FOR MARINE SPECIES

European breeding programmes involve a network of aquaria and organisations working to breed and rear marine species. By working together, their aim is to expand our knowledge, disseminate findings and improve success rates in breeding. The Oceanário de Lisboa participates in European Criteria Breeding Programmes for 16 marine species.

- | Zebra Shark (*Stegostoma tigrinum*)
- | Blacktip reef shark (*Carcharinus melanopterus*)
- | Sandbar shark (*Carcharinus plumbeus*)
- | Inca tern (*Larosterna inca*)
- | Short snouted seahorse (*Hippocampus hippocampus*)
- | Long-snouted seahorse (*Hippocampus guttulatus*)
- | Horn shark (*Heterodontus francisci*)
- | Magellanic penguin (*Spheniscus magellanicus*)
- | Common guitarfish (*Rhinobatos rhinobatos*)
- | Sand tiger shark (*Carcharias taurus*)
- | Spotted ratfish (*Hydrolagus colliei*)
- | Common eagle ray (*Myliobatis aquila*)
- | Bull ray (*Aetomylaeus bovinus*)
- | Leopard shark (*Triakis semifasciata*)
- | Blonde ray (*Raja brachyura*)

## ANIMALS PROVIDED TO 6 PUBLIC AQUARIA

As a result of the work carried out using the breeding processes and protocols for marine species applied at the Oceanário de Lisboa, it has been possible to provide other public aquaria in Europe with animals born at the Oceanário de Lisboa. This cooperation is essential in view of the new role of public aquaria, which are seeking to contribute to the conservation of biodiversity.



## CONSERVATION AND SCIENCE

# CONTRIBUTION TO SCIENCE

One way in which the Oceanário de Lisboa contributes to the conservation of oceans is by promoting scientific knowledge of the species in its biological collection. The work carried out in this area and the sharing of knowledge and experience through an international network of similar institutions enables the Oceanário de Lisboa to be a major player and partner in collaborative efforts for conservation and science.

**7** SCIENTIFIC STUDIES

**5** SCIENTIFIC PUBLICATIONS

**12** PAPERS PRESENTED AT SPECIALIST CONFERENCES

**2** TRAINING COURSES PROVIDED



## SCIENTIFIC STUDIES

### ASSESSMENT OF THE ADAPTIVE CAPACITY OF *PHYLLORHIZA PUNCTATA* AS AN INVASIVE SPECIES IN THE ATLANTIC OCEAN FROM THE MEDITERRANEAN SEA

FACULTY OF SCIENCE, UNIVERSITY OF LISBON

### SEXUAL REPRODUCTION OF TROPICAL CORALS

UNIVERSITY OF THE ALGARVE

### IDENTIFICATION OF TELEOST LARVAE AND LARVAL DEVELOPMENT

ISPA – UNIVERSITY INSTITUTE OF PSYCHOLOGICAL, SOCIAL AND LIFE SCIENCES

### THE DIETARY PREFERENCES OF TWO GORGONIAN SPECIES UNDER CONTROLLED CONDITIONS. COMPARISON BETWEEN THE REPRODUCTIVE CYCLE OF CORALS IN ARTIFICIAL AND NATURAL ENVIRONMENTS

UNIVERSITY OF THE ALGARVE

### EFFECT OF ENVIRONMENTAL ENRICHMENT ON THE BEHAVIOUR OF *ENHYDRA LUTRIS* AT THE OCEANÁRIO

ISPA - UNIVERSITY INSTITUTE OF PSYCHOLOGICAL, SOCIAL AND LIFE SCIENCES

### STUDY OF TURTLES CHALLENGING EVOLUTIONARY THEORIES OF AGEING

Data collected and recorded by the Oceanário de Lisboa has contributed to the study and research that has concluded that turtles challenge common evolutionary theories and may reduce the rate of ageing in response to improvements in environmental conditions. In this new study, published in the journal Science, the researchers used data provided by the Oceanário de Lisboa and other aquaria and zoos, in order to study 52 species of terrestrial and marine turtles..

### STUDY OF MOULTING PATTERNS

The Oceanário de Lisboa has collaborated with researchers at the University of Cork on the study of moulting patterns in Atlantic puffins (*Fratercula arctica*). Researchers tested a study technique, applying geolocators to a number of birds which could be followed using telemetry, in order to assess the periods in which birds lose the ability to fly and therefore become even more vulnerable.s.

## CONSERVATION AND SCIENCE

### SCIENTIFIC PUBLICATIONS

The following are the main scientific articles produced by staff of the Oceanário de Lisboa:

#### **FELASA-AALAS RECOMMENDATIONS FOR BIOSECURITY IN AN AQUATIC FACILITY, INCLUDING PREVENTION OF ZONOSIS, INTRODUCTION OF NEW FISH COLONIES, AND QUARANTINE**

Mocho, J. P., Collymore, C., Farmer, S. C., Leguay, E., Murray, K. N., & Pereira, N. [2022]. *Comparative Medicine*, 72[3], 149-168.

#### **FELASA-AALAS RECOMMENDATIONS FOR MONITORING AND REPORTING OF LABORATORY FISH DISEASES AND HEALTH STATUS, WITH AN EMPHASIS ON ZEBRAFISH (DANIO RERIO)**

Mocho, J. P., Collymore, C., Farmer, S. C., Leguay, E., Murray, K. N., & Pereira, N. [2022]. *Comparative Medicine*.

#### **“HEALTH MONITORING, DISEASE, AND CLINICAL PATHOLOGY.”**

Mocho, Jean-Philippe, and Nuno Pereira. *Laboratory Fish in Biomedical Research*. Academic Press, 2022. 81-100.

#### **ANTIBIOTIC RESISTANCE IN PUBLIC AQUARIUMS**

Pereira, N. M., & David H. [2022]. In R. E. Miller, P. P. Calle, N. Lamberski [1st Ed]. *Fowler's Zoo and Wildlife Medicine Current Therapy Volume 10* [pp. 397-402]. St. Louis, Missouri: Elsevier.

#### **DOES PREDATION EXACERBATE THE RISK OF ENDOSYMBIONT LOSS IN HEAT STRESSED HERMATYPIC CORALS? MOLECULAR CUES PROVIDE INSIGHTS INTO SPECIES-SPECIFIC HEALTH OUTCOMES IN A MULTI-STRESSOR OCEAN**

MADEIRA C, DIAS M, FERREIRA A, GOUVEIA R, CABRAL H, DINIZ MS AND VINAGRE C [2022] *FRONT. PHYSIOL.* 13:801672. DOI: 10.3389/FPHYS.2022.801672

### PAPERS PRESENTED AT CONFERENCES IN PORTUGAL AND ABROAD

In line with its strategy of collaboration and information sharing with similar organisations, the Oceanário de Lisboa was again a committed and regular participant in leading events and conferences, in Portugal and abroad, presenting a total of 12 papers at 9 conferences and congresses, addressing essential issues relating to the maintenance and management of a public aquarium.



## COLLABORATION ON MASTER'S DEGREE COURSES

In close collaboration with Portuguese universities, the Oceanário de Lisboa contributed to and provided training as part of the following university courses:

### DISEASES IN AQUATIC ORGANISMS USED IN SCIENTIFIC RESEARCH

#### MASTER'S IN MARINE ECOLOGY

FACULTY OF SCIENCES, UNIVERSITY LISBON (COMPLEMENTARY STUDIES IN MARINE ECOLOGY MODULE)

### AMPHIBIAN CONSERVATION MEDICINE

#### MASTER'S IN VETERINARY MEDICINE

FACULTY OF VETERINARY MEDICINE, UNIVERSIDADE LUSÓFONA (CONSERVATION MEDICINE MODULE)

## PARTICIPATION IN LEADING ORGANISATIONS A

The Oceanário de Lisboa is a member of several Portuguese and international committees and associations, contributing to decision-making in leading organisations in the field of management of public aquaria and ocean conservation.

- | EUROPEAN UNION OF AQUARIUM CURATORS (CHAIR)
- | EUROPEAN ASSOCIATION OF ZOO AND AQUARIA (EXECUTIVE COMMITTEE, AQUARIUM COMMITTEE, COMMUNICATION COMMITTEE)
- | JELLYFISH TAXON ADVISORY GROUP OF EAZA (COORDINATION)
- | STEERING COMMITTEE OF THE ELASMOBRACH TAXON ADVISORY GROUP DA EAZA (MEMBER)
- | EAZA BIOBANK WORKING GROUP (MEMBER)
- | EAZA RECORDS WORKING GROUP
- | EAZA GROUP MANAGEMENT INITIATIVE
- | EUROPEAN CENSUS OF ELASMOBRANCHS (COORDINATION)
- | IUCN SHARK SPECIALIST GROUP (MEMBER)
- | "ANIMAL DISPOSITIONS" WORKING GROUP OF THE EUROPEAN UNION OF AQUARIUM CURATORS (MEMBER)



## CONSERVATION AND SCIENCE

# IN SITU CONSERVATION

The Oceanário de Lisboa's work to promote ocean conservation includes funding for pioneering projects that are able to contribute decisively to conservation of threatened species and marine biodiversity in general.

We list below the projects supported by the Oceanário de Lisboa in progress in 2022, the main thrust of their work and the results achieved.

**139** THOUSAND EUROS  
SUPPORT FOR PROJECTS

**10**  
CONSERVATION PROJECTS  
IN PROGRESS

### LEARNING ABOUT EEL MOVEMENTS IN THE AZORES

#### EEL TREK

2019-2022 | Azores

PARTNERS/ENTITIES: Fundação Gaspar Frutuoso

### INCREASING SCIENTIFIC KNOWLEDGE OF THE SPERM WHALE IN THE WATERS OF MADEIRA

#### WHALE TALES

2019-2022 | Madeira

PARTNERS/ENTITIES: ARDITI – Associação Regional para o Desenvolvimento da Investigação, Tecnologia e Inovação

### GENETIC STUDY OF THE LIMPET OF THE ILHAS SELVAGENS

#### THE SELVAGENS' LIMPET PROJECT

2019-2022 | Ilhas Selvagens, Madeira

PARTNERS/ENTITIES: Universidade Lusófona (coordinator), Funchal Natural History Museum, Marine Sciences Centre of the University of the Algarve, Portuguese Malacological Institute

### PROMOTE SUSTAINABLE DEVELOPMENT OF CLAM DIGGING

#### COACH

2019-2022 | Aveiro Tidal Reaches

PARTNERS/ENTITIES: University of Aveiro/  
CESAM

### OBTAIN KNOWLEDGE OF DEEP SEA SPONGES AND CORALS ALONG THE PORTUGUESE COAST

#### DEEPBASELINE

2019-2022 | Portugal

PARTNERS/ENTITIES: CIIMAR, IPMA, University of the Azores





## **ENSURE THE CONDITIONS NEEDED FOR THE SURVIVAL OF SEA TURTLES**

### **SEA TURTLES CONSERVATION PROGRAMME IN SÃO TOMÉ E PRÍNCIPE**

2012-2022 | São Tomé

PARTNERS/ENTITIES: Associação Programa Tatô

## **INCREASE KNOWLEDGE ON THE PRÉSENCE OF MOBULAS**

### **MANTA CATALOG AZORES**

2017-2022 | Azores and Eastern Atlantic

## **LEARN ABOUT THE DISTRIBUTION, ABUNDANCE, BEHAVIOURS AND WAY OF LIFE OF BULL RAYS**

### **FLY WITH BULL RAYS**

2017-2022 | Malta and Canary Isles

PARTNERS/ENTITIES: IMAR – Instituto do Mar,  
Azores

## **CHARACTERISE THE USE OF TUNA SPECIES IN THE PORTUGUESE CANNING INDUSTRY**

### **TUNAPRINT - THE TUNA BEHIND THE CAN**

2019-2022 | Portugal

PARTNERS/ENTITIES: MARE – Marine and  
Environmental Sciences Centre

## **ASSESS THE IMPACT OF FISHING ON THE ABUNDANCE AND DIVERSITY OF SHARKS AND RAYS IN ANGOLAN WATERS**

### **ANGOLA ELASMO PROJECT**

2021-2022 | Angola

PARTNERS/ENTITIES: Ludwig-Maximilians -  
University of Munich

## **RESCUE OF SEAHORSES AT TRAFARIA**

The Oceanário de Lisboa joined forces with the team from ICNF (Conservation and Forestry Institute) and MARE-ISPA to rescue a population of seahorses which were endangered after the collapse of one of the jetties in Trafaria, Almada. The Oceanário de Lisboa was responsible for taking in and caring for these animals. The aim was to reintroduce them when the work on the jetty was completed or else to transfer them to another location with appropriate characteristics, as decided by ICNF.

## **REMOVAL OF CABLE AND RECOVERY OF MARINE LIFE IN TRÓIA**

The Oceanário de Lisboa took an active part in efforts to recover animals and remove a 200-meter cable from the beach at Soltróia, which was damaging the seagrass meadows, causing the loss of algae and plants essential for this habitat.

This work was organised by the NGO Ocean Alive, and after a period of quarantine the animals will be included in the exhibition in the Oceanário de Lisboa's Seagrass Meadows aquarium, thereby enriching biodiversity and helping to educate people about the importance of these ecosystems.

# EDUCATION AND AWARENESS RAISING

In 2022, the Oceanário de Lisboa implemented a new educational strategy, with innovative programmes, in the aquarium and in the wild, centred on greater interaction and engagement with participants. Over the course of the year, there was also a strong focus on communication as an educational tool and on involving the community in one-off experiences and training activities, taking blue education to new audiences.

**76 624** (up 482%)

**PARTICIPANTS  
IN EDUCATIONAL ACTIVITIES**



Here we list the programmes set up and developed in 2022 and also those which were resumed after the pandemic.

## **SCHOOL PROGRAMMES RETURN TO IN-PERSON FORMAT**

### **24,955 PARTICIPANTS**

After two years in which in-person activities were suspended, due to the COVID-19 pandemic, the educational programmes organised at the Oceanário de Lisboa were resumed. These are tailored to different aims and educational levels, and have been eagerly taken up by school groups.

## **THERE'S LIFE BETWEEN THE TIDES**

In addition to the educational programmes at the aquarium, this new programme, designed and presented in 2022, takes school groups to the sea shore, to discover biodiversity in the intertidal zone. Developed in partnership with KidsDive, offering activities at Avenças beach [Cascais], Magoito beach [Sintra] or Empa beach [Mafra].

## **SPECIAL PROGRAMMES**

### **33,138 PARTICIPANTS**

Unique activities at the aquarium, bringing together family and friends, to mark special events or enjoy the beauty of marine biodiversity. These events mobilise people of all ages to support ocean conservation. Educational activities for families and groups were resumed at the Oceanário de Lisboa in 2022, including our programmes for birthday parties, "The sea for all ages" and guided tours. Participant numbers were up on 2019.

## **OCEAN LEADERS SCHOOL TOURS**

### **3,894 PARTICIPANTS**

Ocean Leaders are top Portuguese sportsmen and women competing in water sports, who are able to use their personal experiences to capture the interest of and engage with young people, building an emotional connection with the ocean and marine species.

Joana Schenker, world bodyboard champion, and Frederico Morais, a surfer on the world championship circuit, stepped up their ocean leadership work in 2022 through inspirational talks for school students, both in-person and online.



## **DOLPHINS IN THE TAGUS RIVER**

### **594 PARTICIPANTS**

An immersive experience in marine ecosystems, with an important educational component, designed to engage with participants and help them to connect to biodiversity, with a view to inspiring blue citizenship. Unforgettable dolphin watching, on a boat trip in the mouth of the river Tagus. Participants are accompanied by a marine biologist, who takes them to discover Lisbon from a fresh perspective, in what is the only European capital where dolphins can be sighted in the wild. This programme is a partnership with Terra Incógnita.

## **“SEASTAINABILITY” CORPORATE TRAINING PROGRAMME**

### **535 PARTICIPANTS**

The Oceanário has launched a new training programme for companies. There is an urgent need to understand that sustainable development requires a shift in values, attitudes, how we think and how we act. The different modules in this programme (sustainability, climate change and marine waste), combined with teambuilding activities (beach clean-ups, dolphin watching, peddy-papper in the Oceanário de Lisboa or circular economy workshops), challenge participants to go the extra mile needed to achieve greater sustainability. Training was provided in 2022 for employees from various countries around the world: Portugal, India, Brazil, Spain, Peru, Australia and New Zealand.

## **BEACH CLEAN-UPS FOR COMPANIES**

Beach clean-ups were organised up and down the country as part of the corporate training programme. By monitoring the waste collected in beach clean-ups, valuable information can be obtained, such as the most common types of waste, sizes and, in some cases, even the origin of the waste. The data gathered is essential for identifying priorities for action and creating prevention plans.

## **AN OCEAN FOR TEACHING**

### **MONTHLY ONLINE MAGAZINE FOR TEACHERS**

In order to contribute further to a school community that is more aware of the importance of the ocean, the Oceanário de Lisboa has developed new free content, prepared exclusively for teachers, with ideas for student activities and fascinating facts about the work done at the Oceanário and the species that have made their home in the aquarium. Eleven editions of the magazine were launched in 2022.

## **AN OCEAN TO DISCOVER**

### **NEW WEBSITE AREA**

The Oceanário has launched a new area on its website, providing answers to the most frequently asked questions about the marine world. This new educational tool promotes ocean literacy and explores the different dimensions of blue knowledge, such as science, history, the environment, the economy and sustainability. It offers a quick and easy way for users to learn more about the ocean, contributing to a society that is better informed about marine issues.

## **LIVESTREAMS ON SOCIAL MEDIA**

To help make our community more aware of the importance of the ocean, the Oceanário de Lisboa offers a number of online initiatives with content promoting ocean literacy.

The educational programme has embraced social media, with livestreams each month on Instagram, showing the Oceanário's exhibitions, the animals and the research work carried out. The participants in these livestreams have included several members of the aquarium staff, the CEO, researchers and the Ocean Leaders, Joana Schenker and Frederico Morais.

# COMMUNICATION AND OUTREACH

The Oceanário de Lisboa's communication strategy is designed to help it achieve its mission of promoting knowledge of the oceans and to raise public awareness of the duty of conservation, bringing important ocean-related topics and issues to the attention of our visitors and the general public.



**1.133 NEWS** (UP +26% ON 2021)



**2.6 M WEBSITE VISITORS** (UP +142% ON 2021)



**149,000 FACEBOOK FANS** (UP +4% ON 2021)



**12.2 M VIEWS OF OCEANÁRIO VIDEOS** (UP 572% ON 2021)



**60,000 INSTAGRAM FOLLOWERS** (UP +16% ON 2021)

## «A WINDOW ONTO THE OCEAN»

Designed to promote the experience of visiting the aquarium, an institutional communication campaign was conducted throughout 2022 by producing new video content inviting people to "Visit the Oceanário and support conservation of everything you see through this window onto the Ocean".

## «FEELS LIKE HOME»

Developed to capture the attention of different nationalities, the campaign shows that there is a unique place to reminds us that there is only one ocean and one planet, a place that shows us that we all came from the same place, somewhere that makes us feel at home: the Oceanário de Lisboa.

# FEELS LIKE HOME

NO MATTER WHERE YOU COME FROM, WE ALL CAME FROM THE SAME PLACE, THE OCEAN, OUR HOME.

# HUMAN RESOURCES

AVERAGE NUMBER OF EMPLOYEES **70**

AVERAGE LENGTH OF SERVICE **10 anos**

PERMANENT EMPLOYEES **94%**

GENDER BREAKDOWN

AVERAGE AGE **39 anos**

**♂60% ♀40%**

## 21 STUDENT AND PROFESSIONAL INTERNSHIPS

In 2022 the Oceanário de Lisboa hosted 21 internships, dividing into 43% student interns and 57% professional interns, in the following areas: Biology (18), Education (1), Operations (1), Human Resources (1).

## TRAINING

The Training Plan adopted for 2022 consisted of internal training, external training and attendance of conferences and seminars, representing a total investment of 1,317 training hours.





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# SOCIAL RESPONSIBILITY

In the course of its operations, the Oceanário de Lisboa seeks to promote socially balanced outcomes from its performance, seeking to maintain and establish partnerships and protocols enabling it to implement its policies for offering special terms for access, and to contribute to society.

**1,178 VISITS**  
**CHILDREN, ADULTS AND THE ELDERLY**

## **CARING OCEANÁRIO: FREE TICKETS FOR WELFARE INSTITUTIONS**

As part of its social responsibility and community engagement and participation policy, the Oceanário de Lisboa provided free tickets in 2022 for 1,178 children, adults and elderly visitors from a number of institutions, including the following beneficiary institutions:

Associação Acreditar  
Terra dos Sonhos  
Parque das Nações Civil Parish Council  
Make-a-wish  
Associação dos Ucrânicos em Portugal  
Ronald Macdonald Children's Foundation  
Fundação O Século  
Colégio Cantinho das Alfazemas  
Associação Portuguesa de Solidariedade Mãos Unidas Padre Damião

## **«INOVA SBE INCLUSIVE COMMUNITY FORUM»**

The "Inclusive Community Forum" is an initiative of the Nova School of Business and Economics seeking to improve the lives of disabled people and to promote a more inclusive community. The Oceanário de Lisboa is a member of the Institutions' Board of this initiative, and shares in its aims of building a network of everyone involved in the lives of these people, and challenging them to take an active role in co-creating solutions.

# ECONOMIC AND FINANCIAL ANALYSIS

In financial terms, 2022 was a very positive year for the Oceanário de Lisboa, which presented growth of 267% in its net income, compared with 2021, when it recorded a loss. This net income of 4,5 million euros was due essentially to growth in sales of 156% and consistently careful management of expenditure and investment.

Importantly, the Oceanário pressed ahead with measures adopted to protect the safety of staff and visitors, as well as the welfare of animals, and to honour our commitments to the Portuguese State under the public service concession contract.

The Oceanário de Lisboa has contributed to invest in conservation and education programmes, demonstrating its strategic commitment to achieving its mission, as may be seen in the value of investment in the various projects and initiatives shown in the following table:



## EDUCATION AND CONSERVATION PROGRAMMES

EDUCATION	2022	2021	2020
<b>Educational activities at Oceanário de Lisboa</b>	<b>257 605</b>	<b>22 793</b>	<b>45 650</b>
<b>Free outreach educational activities</b>	<b>51 390</b>	<b>47 183</b>	<b>142 611</b>
Leaders for ocean sustainability	48 604	43 422	67 694
Oceanário Shuttle	2 366	3 761	15 814
Marine plasticology	183	-	41 196
Educating a Blue Generation	-	-	2 498
MPA Algarve Educational Programme	-	-	6 855
Planet Ocean	-	-	8 553
Others	237	-	-
	<b>308 995</b>	<b>69 976</b>	<b>188 261</b>
<b>CONSERVATION</b>			
Red Book of Marine Fishes of Portugal	66 965	4 000	-
Sea turtle conservation de São Tomé	20 000	20 000	20 000
"Manta Catalog Azores" Project	13 000	-	-
"Elasmo Angola" Project	10 972	10 050	-
"Secore" Project	10 000	-	-
"SPEA - Pardela balear" Project	10 000	-	-
"Manta Experience" Project	8 347	39 189	-
"Fly with Bull rays" Project		9 968	-
"Tunaprint" Project		9 980	-
"Angel Shark" Project		-	8 992
"Save the Ria Formosa seahorses" campaign		-	414
Ocean Conservation Fund (3rd Edition - 2019)			
"Coach" Project		-	28 388
"Deepbaseline" Project		-	29 850
"Slip" Project		-	16 763
Others	-	-	6 293
	<b>139 284</b>	<b>93 187</b>	<b>110 700</b>
Others	337 525	-	3 634
<b>EDUCATION AND CONSERVATION PROGRAMMES</b>	<b>785 805</b>	<b>163 163</b>	<b>302 595</b>

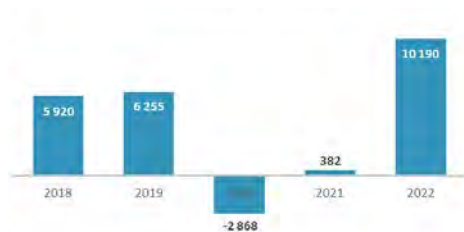
amounts in euros

# RESULTS

## EBITDA

EBITDA (Earnings before Depreciation and Amortisation) stood at 10.2 million euros, up by 9.8 million euros on 2021.

**EBITDA**  
thousands euros



## NET INCOME

Net income for 2022 was 4.5 million euros, representing a positive variation of 7.2 million euros in relation to the previous year.

**NET INCOME**  
thousands euros



Below we summarise Income Statement items and their variation in relation to the previous year:

	2022	2021	VALUE VARIATION	VARIATION %
<b>INCOME</b>				
Operating donations and bequests	38	39	-1	-2%
Sales	1 950	844	1 106	131%
Provision of services	19 685	7 601	12 084	159%
Other Income and Profits	572	126	447	355%
Interest and other income	5	0	5	-
<b>EXPENSES</b>				
Cost of Goods Sold	686	337	349	104%
Supplies and External Services	8 095	5 370	2 726	51%
Staff Costs	3 048	2 395	653	27%
Depreciation and amortisation costs	2 882	2 869	12	0%
Impairment losses	44	0	44	-
Other expenses and losses	226	125	101	81%
Expenses and Losses from Loans	1 225	1 032	192	19%
<b>INCOME BEFORE TAX</b>	<b>6 045</b>	<b>-3 519</b>	<b>9 565</b>	<b>-272%</b>

# REVENUES

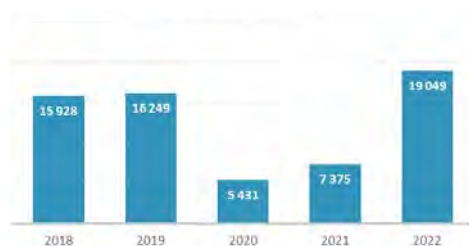
	2022	2021	VALUE VARIATION	VARIATION %
Ticket office	19 049	7 375	11 674	158%
Gift shop	1 950	844	1 106	131%
Donations	38	39	-1	-2%
Sponsorships	100	100	0	0%
Rentals	300	78	222	284%
Space leases	47	27	21	78%
ACE	21	21	0	2%
Photography	128	0	128	n.a
Other Services	39	0	39	n.a
<b>SALES AND SERVICES RENDERED</b>	<b>21 672</b>	<b>8 484</b>	<b>13 189</b>	<b>155%</b>
Other Income and Profits	572	126	447	355%
Interest and other income	5	0	5	n.a
<b>TOTAL INCOME</b>	<b>22 250</b>	<b>8 609</b>	<b>13 641</b>	<b>158%</b>

thousand euros

## TICKET SALES

Ticket sales increased by 11.6 million euros. The factors contributing to this were the gradual upturn in visitor confidence, especially among the Portuguese public, promotional campaigns and the design of new products, in particular on online platforms.

**TICKET SALES**  
thousands euros



## SHOP

Reflecting the increase in visitor numbers from 2021 to 2022, the shop also increased its sales, with turnover of 1,950,000 euros, representing growth of 1,1 million euros over the previous year.

## SPONSORSHIP

The sponsorship revenue recorded in 2022 refers to the annual sponsorship contract with Pingo Doce which is worth 100,000 euros.

## LEASES

This item includes revenue from operation of catering areas on floor 1 of the Sea Building (Tejo restaurant) and on floor 0 of the Ancillary Building (SeatheFuture restaurant). This item increased by 222,000 euros in 2022.

## OTHER INCOME AND GAINS

The most significant contribution to this item was from the gains on the financial holding in Telecabine Lisboa, for which a figure of 465,000 euros was recorded in 2022.



# EXPENDITURE

Expenditure in 2022 increased by 34% in relation to the previous year, due to full resumption of activities.

EXPENDITURE	2022	2021	VALUE VARIATION	VARIATION %
Cost of Goods Sold	686	337	349	104%
Supplies and External Services	8 095	5 370	2 726	51%
Staff Costs	3 048	2 395	653	27%
Depreciation and amortisation costs	2 882	2 869	12	0%
Impairment losses	44	0	44	-
Other expenses and Losses	226	125	101	81%
Expenses and Losses from Loans	1 225	1 032	192	19%
<b>TOTAL EXPENDITURE</b>	<b>16 205</b>	<b>12 128</b>	<b>4 076</b>	<b>34%</b>

thousand euros

# INVESTMENTS

Capital Expenditure (CAPEX) stood at 738 thousand euros, up by 336% on the previous year. The main capex items are summarised in the following table:

INVESTMENTS	2022	2021	2020	2019	2018	2017	2016
Engineering	453	82	228	877	761	642	1 200
General investments of the company	173	74	39	896	3 012	1 015	44
Biology	32	10	37	50	55	41	61
Commercial	4	4	53	33	79	1	114
Temporary Exhibition	0	0	387	1 089	1 099	0	0
Communication	0	0	0	0	0	0	0
Education	7	0	1	25	65	36	21
Operations	0	0	1	17	4	11	32
Others	69	0	0	0	0	0	0
<b>TOTAL INVESTMENTS</b>	<b>738</b>	<b>169</b>	<b>746</b>	<b>2 986</b>	<b>5 075</b>	<b>1 746</b>	<b>1 472</b>

thousand euros

MAIN CAPEX ITEMS	2022
Emergency lighting and signage in Oceans Building	122
Migration of Centralised Technical Management Systems	98
Ozone Generator	66
Improvement to ancillary building	62
Revamp of Building Management System room	45
Fencing of Habitats roof	39
Migration of Tenant 0364 from ODL to FOA	35
Substitution of window frames in culture room	29
Migration to v10 ERO Primavera	15
Other Capex	229
<b>TOTAL</b>	<b>738</b>

thousand euros



# FINANCIAL INFORMATION

<b>FINANCIAL INFORMATION</b>	<b>2022</b>	<b>2021</b>	<b>Variation %</b>
Net Assets	47 623	43 772	9%
Liabilities	41 841	42 526	-2%
Equity	5 783	1 246	364%

<b>RESULTS</b>	<b>2022</b>	<b>2021</b>	<b>Variation %</b>
Operating income	22 245	8 609	158%
Operating Expenses	14 980	11 096	35%
EBITDA	10 190	382	2565%
EBIT	7 265	-2 487	392%
Results Before Taxes	6 045	-3 519	272%
Net Income	4 537	-2 723	267%
Operating margin* [ %]	34%	-29%	63%
EBITDA Margin*	47%	5%	43%
CAPEX	738	169	336%
EBITDA minus CAPEX	9 452	213	4334%

<b>ACTIVITY INDICATORS</b>	<b>2022</b>	<b>2021</b>	<b>Variation %</b>
No. Visitors*	1 254 856	584 751	115%
Ticket revenue	19 049	7 375	158%
Average ticket price* (EUR)	15,18	12,61	20%
No. of Participants in Educational Act.*	76 624	16 022	378%
Educational Activities revenue	720	74	878%

[thousands of euros, except \*]



## RESULTS

thousand euros



# PROPOSED EARNINGS DISTRIBUTION

The Net Income for the year 2022 amounted to 4,536,685.59 Euros

The Oceanário de Lisboa, S.A. Board of Directors proposes the transfer of all Net Income to Retained Earnings.

# OUTLOOK FOR 2023

2023 will maintain the uncertainty and volatility that characterized 2022.

Despite the difficulty of predicting the impact that this type of conjuncture has on different sectors and countries, we believe that 2023 will be a positive year for the Lisbon Oceanarium, maintaining the ambition of robust financial results and consequent impact on ocean conservation.

# CLOSING STATEMENT

Closing the Management Report for the 2022 Financial Year, the Board of Directors expresses its unreserved gratitude to all those who supported and helped Oceanário de Lisboa pursue its objectives, in this year marked by a particularly challenging context, namely:

The employees at Oceanário de Lisboa for their dedication, effort and commitment;

Sociedade Francisco Manuel dos Santos, for the company's trust and repeated commitment to the values and mission of the institution;

The sole shareholder, the Oceano Azul Foundation, for its reaffirmed commitment to ocean conservation;

The Portuguese Government, in particular the Ministry of the Economy and the Sea, the Ministry of the Environment and Climate Action, and the Ministry of Finance, for their confidence in us;

The media, for the collaboration and availability they have always demonstrated;

The official sponsor of Oceanário de Lisboa, Pingo Doce;

Oceanário de Lisboa dealers and suppliers, for their continued collaboration, without which it would have been difficult to meet the year's challenges.

And, lastly, to all visitors, the reason why Oceanário de Lisboa exists.

Lisbon, 09 March 2023

The Board of Directors

José Soares dos Santos

João Falcato Pereira

Tiago Pitta e Cunha

Pedro Veloso

Vera Catarino

# 2022

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