

Exploration

Discovery

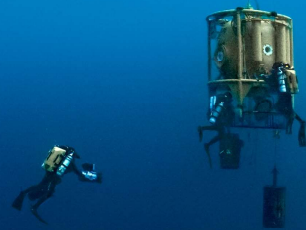
Great depths

Scientific missions

Environmental challenges

Unprecedented images

....



Press Dossier

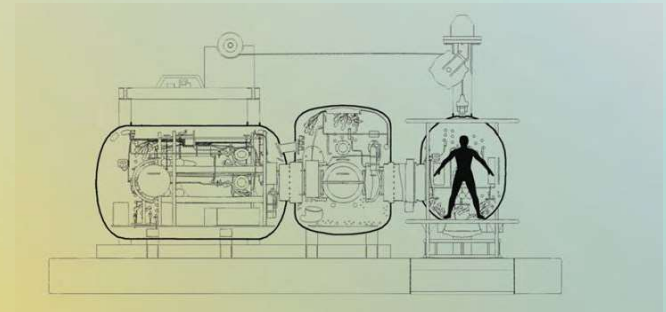


# “Planet Mediterranean”

The Laurent Ballesta's latest expedition

*4 divers will spend a month in isolation, 120 metres beneath the sea, in order to rediscover the marine life of the Mediterranean.*

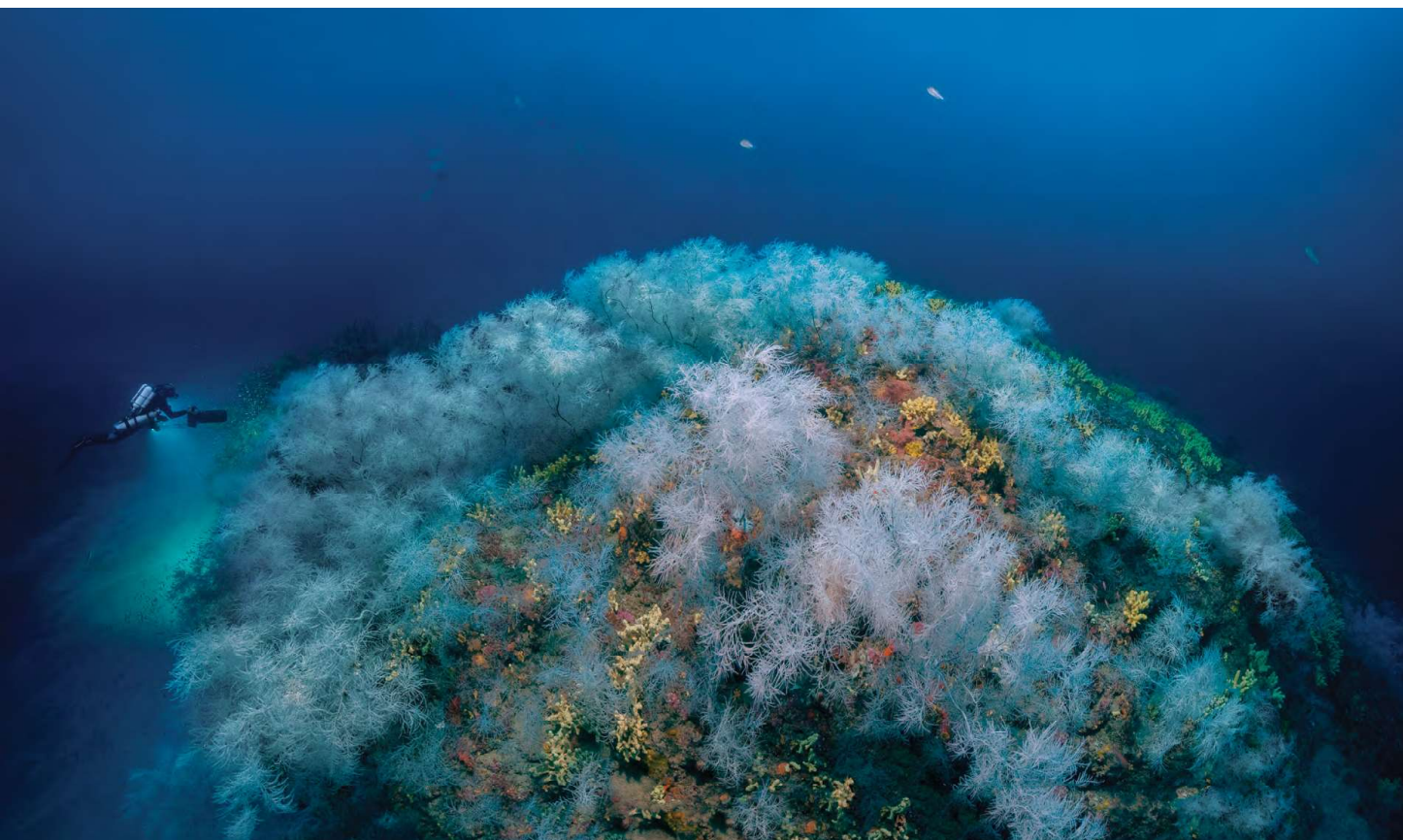
- Summer 2019 -



# GOMBESSA V

## “ Planet Mediterranean ”

*An ambitious wide -ranging mission that combines scientific research of the marine environment with a sporting and technical challenge.*



Because man has lived and travelled around the Mediterranean for thousands of years, we assumed it held no more secrets. Because we have conquered and mistreated it, we imagined it was ruined. However, the Mediterranean is still very much a living sea which is yet to be explored.

In its depths are hidden vast and rich territories that we still know very little about. Known as coralligenous reefs, and no less beautiful than coral reefs, these hotspots of biodiversity are found 80 to 120 metres below the surface, in the “twilight zone” which is penetrated by less than 1% of the sun’s light.



*Seen from the sky, it is hard to imagine how much human activity can impact marine life deep under the sea.”*

To study, photograph, and reveal the unsung underwater riches of the Mediterranean. That was the challenge renowned photographer, biologist and expedition leader Laurent Ballesta set himself.

After completing deep diving missions around the world known as the “Gombessa expeditions”, he is preparing to lead the 5th Gombessa expedition: “Planet Mediterranean”.







*Diving to such depths is always a challenge, but actually living there is a fantasy, a utopian dream come true."*

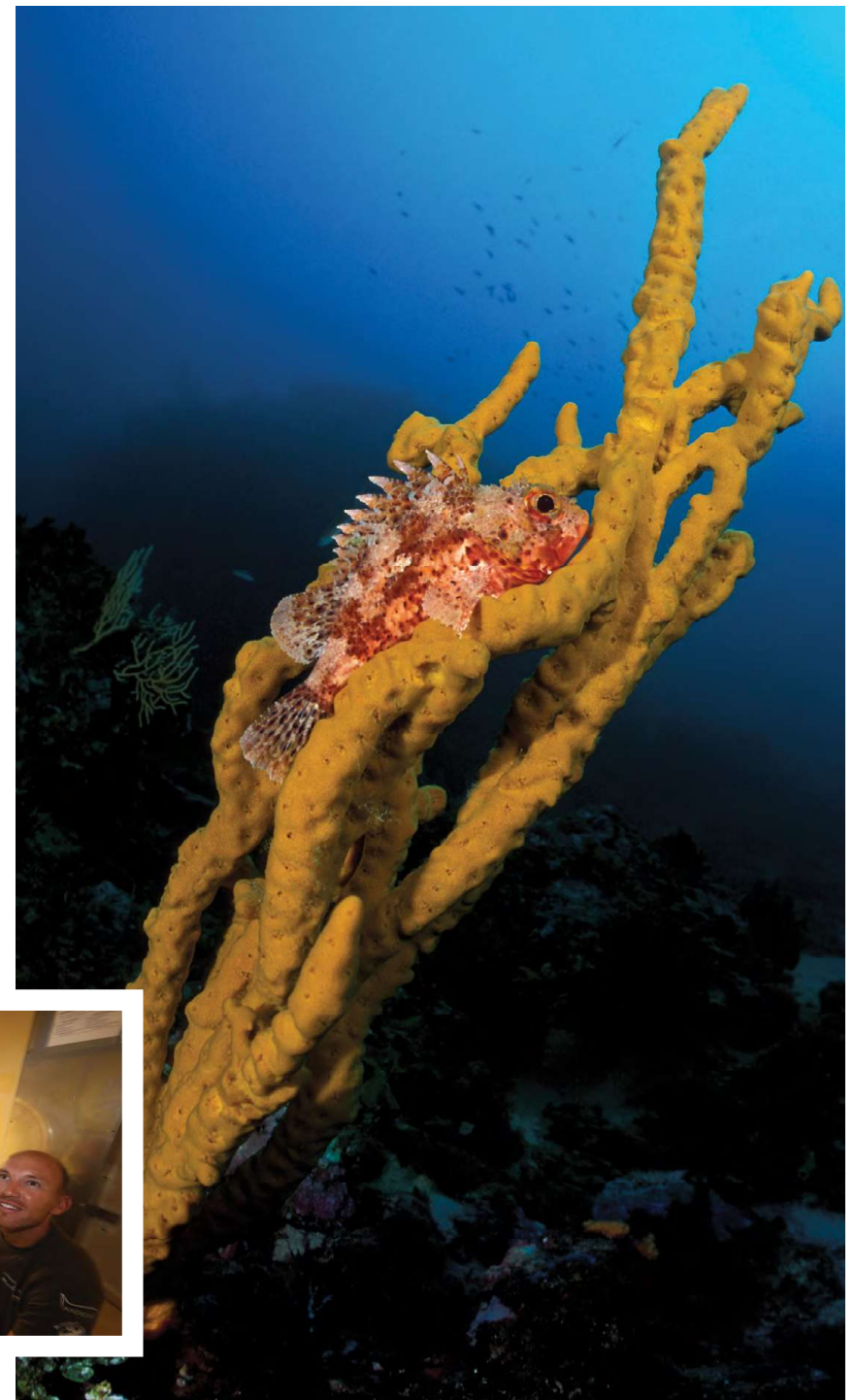
*The diving challenge, the ecological stakes and the promise of exceptional images will make this expedition a major turning point in the history of underwater diving, promising plenty of surprises...*

It is a first anywhere in the world. Laurent Ballesta and 3 other divers will undergo an unprecedented experience: living together in a 5 metre-square pressurised chamber for 28 days (1st to 28th July, 2019) in order to explore the great depths 120 metres below the surface without time constraints.

Their explorations will be made possible thanks to the marriage of two techniques : saturation diving (being confined in a space kept under pressure ) and recreational deep diving (using scuba rebreathers).

With the pressure at -120 metres being 13 times greater than at the surface , Laurent Ballesta and his team have only ever been able to make short 10, 20 or 30-minute incursions to these depths , requiring 3, 4, or 5 hours of gradual ascent in order to decompress safely.

Now, with the Gombessa 5 project , time will no longer be limited . A diving bell will take them down to great depths each day, and they will be free to explore these previously undiscovered spaces at their leisure.





**Principal challenges:** scientific research, sporting challenge & photography.

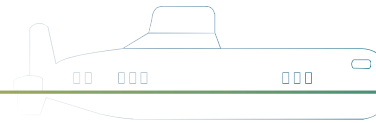
## Science / discovery

Difficult to access and hard to study, these depths and the coralline reefs are not well-known to marine biologists. And yet, faced with the environmental impact of humans, these reefs have become refuges for biodiversity. This latest expedition will give the divers the time they need to discover them and conduct valuable scientific missions: mapping, analysing ecosystems, researching rare species and studying pollution levels in the Mediterranean.

It goes without saying that as a world first in terms of technical and sporting performance, this expedition will provide a lot of answers, at a time when conservation is so vital.

This expedition also opens new perspectives for archaeology. The divers will explore various wrecks and carry out simple tasks that no human or robot has been able to perform before now.

“Exploring the great depths as scuba divers without any time constraints is a technical challenge dedicated to understanding, a human and sporting challenge dedicated to raising awareness and a first anywhere in the world.”

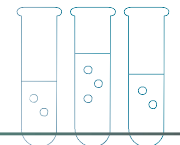


### EXAMPLE MISSION

**LE PROTEE**, French navy submarine sunk in 1943 with no survivors. The wreck was found at a depth of 125 metres in 1995. Laurent Ballesta and his team will be able to unravel the mystery surrounding the cause of its sinking.

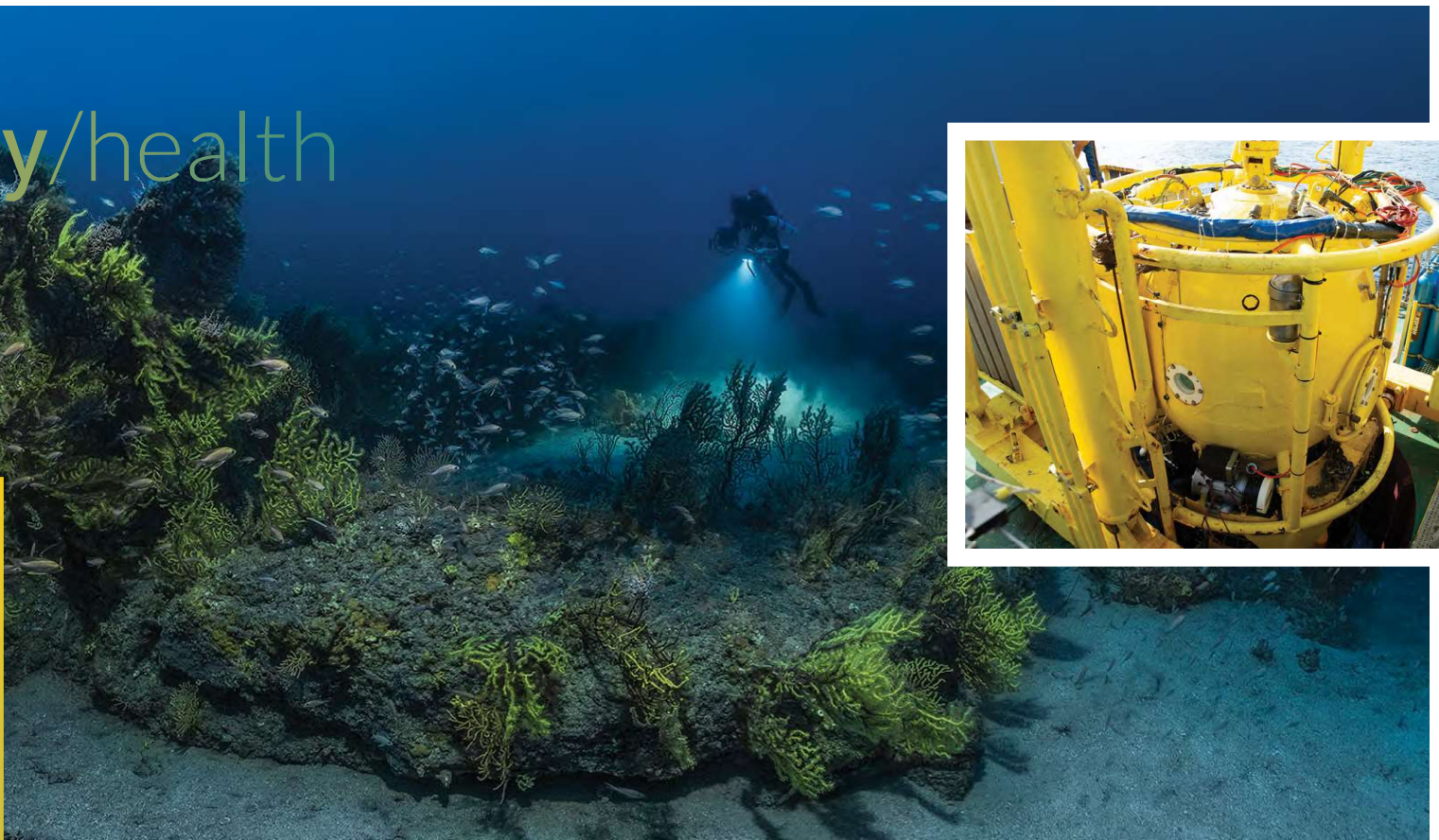
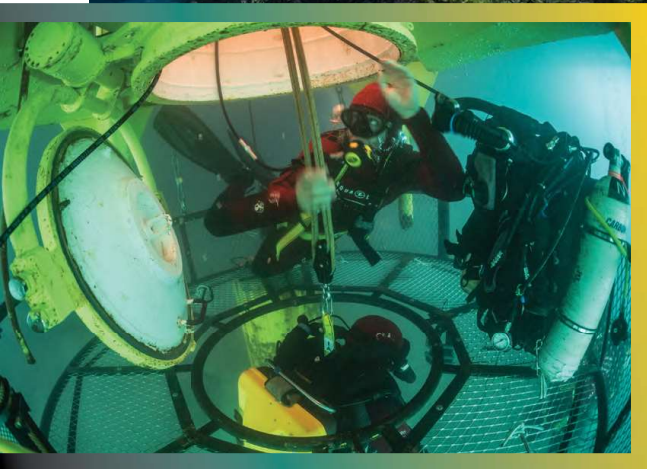
**A DOZEN LABORATORIES IN FRANCE AND ABROAD** have sponsored several scientific experiments.

These underwater ecosystems, normally not well-known because of their inaccessibility, are of major importance in the study of climate change (refuge areas, carbon sinks, etc.). This is why the Agence de l'Eau has approved and financed a project to set up a surveillance network for these deep ecosystems.





# Physiology/health



The expedition is also a physiological challenge: the 4 men will spend 28 days in a pressurised module, living at 13 times normal pressure.

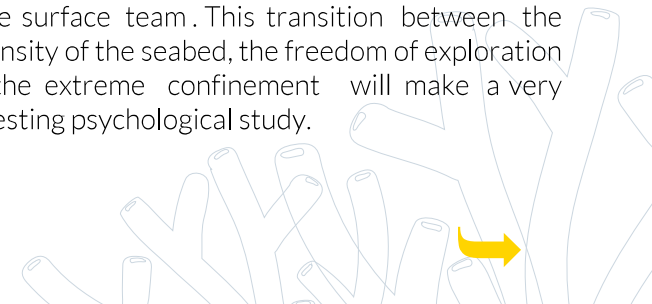
Although saturation diving makes this project viable, it is still considered an extreme environment for humans. This experience has never been studied in real, operational situations.

~  
*«This experience has never been studied in real, operational situations.»*  
 ~

During the expedition, the divers will breathe a rare gas mixture composed mostly of helium (90%) and only 2% oxygen. The divers will need to be monitored every day to make sure that these amounts of gas are not affecting their health.

Psychologically, the divers will also be undergoing a new experience: living together for almost a month in extreme confinement.

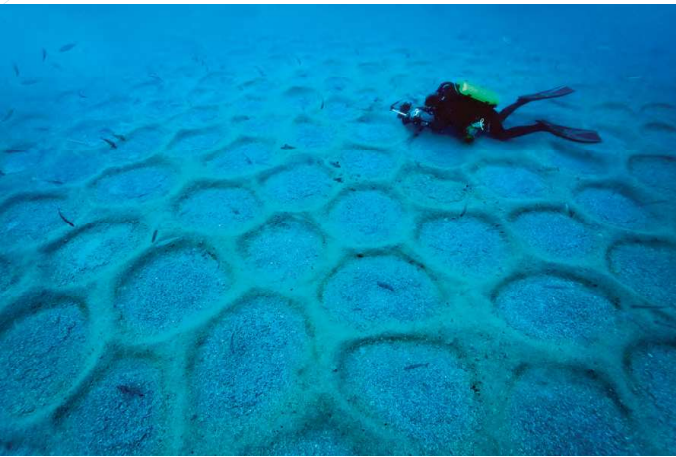
Outside the diving bell they will be free to decide their own actions, but the rest of the time, they will be confined to a minuscule compartment controlled by the surface team. This transition between the immensity of the seabed, the freedom of exploration and the extreme confinement will make a very interesting psychological study.





# The promise of unique and powerful photographs

Can we still produce unique images in the Mediterranean? Are there still surprises to be unveiled? These are the driving questions behind Gombessa 5 "Planet Mediterranean".



Laurent Ballesta, underwater photographer, takes unprecedented pictures of the seabed around the world. His photographs are of remarkable quality, giving the impression that the opacity of the water has disappeared.



The expedition Gombessa 5 "Planet Mediterranean" will be shared with the public in the following ways:

- A series of video blogs so you can keep up to date with the mission every day on social media.
- A 90-minute film shown at Prime Time on the channel ARTE. An ode to the hidden beauty of the French Mediterranean that tells the story of the Gombessa 5 expedition.
- A 52-minute version for international channels.
- A 52-minute film for the channel ARTE about the history of deep sea diving.
- A book of photographs.
- An exhibition of large format photographs.



“

This project is extraordinary, in the sense that it is out of the ordinary. *Never before have these ecosystems, so distant and inaccessible yet so close to our coast, been studied and photographed* like this. The scientific findings will clearly be very pertinent and the photographs will provide a rare exoticism.

- Laurent Ballesta.

”





# Laurent Ballesta

a realist dreamer, at the crossroads between science and image...

*Laurent Ballesta is a photographer, biologist and leader of underwater*

## THE HIGHLIGHTS OF HIS CAREER

Author of 13 books dedicated to underwater photography, he was the youngest photographer to be awarded the “Plongeur d’Or” at the Festival International de l’Image Sous Marine d’Antibes.

**1999** > Becomes science advisor for marine environments on French TV programme **Ushuaia Nature** alongside explorer and presenter Nicolas Hulot. For 12 years, he used these journeys to fill his bestiary of underwater fauna around the world.

**2000** > He and Pierre Descamp founded the association “L’Œil d’Andromède” with the aim of combining ocean research with artistic appreciation of the marine environment.

In **2008** this led to the creation of a company, **Andromède Océanologie**.

**2007** > > Laurent Ballesta takes **the deepest photograph** ever obtained by a diver, at -190 m, off the coast of Nice.

**2009** > He organises a secret expedition to South Africa to fulfil a lifelong dream of swimming with Gombessa (another name for **the coelacanth**) and brings back the first ever photo of the living fossil taken by a diver.

That mission led to the first **GOMBESSA expedition**, 4 years later, to conduct the first scientific tests on a live coelacanth specimen, at -120 m.

Since then, Laurent Ballesta has led 4 **GOMBESSA** expeditions, with each new project continuing the tradition of its predecessors.

“ When ecology becomes a lost cause, exploration and conservation become the noblest of all struggles. If we want to hold onto our dreams, first we have to let go of our illusions.

Compared to my previous expeditions, I would say that this coming project is both the most ambitious and the most personal, as it is in the Mediterranean. As a technical and sporting achievement, it is a first anywhere in the world, and I choose my words carefully when I say that. I have waited 18 years to be able to explore in this way.

- Laurent Ballesta.

”



# The Gombessa expeditions

*Laurent is a rare species of explorer who pushes the limits of diving through his love of the ocean and science.*

*By going in search of the coelacanth in 2013, Laurent began a series of explorations known as the "Gombessa Expeditions" in homage to the 3 values that fish represents: a scientific mystery, a diving challenge, the promise of unprecedented images.*

## Gombessa 4 (2018)

### 700 Sharks Into The Dark

On the Gombessa 2 expedition, the researchers were surprised to observe an unusually high concentration of grey reef sharks in the southern pass of the Fakarava atoll. The team was also surprised by their hunting behaviour, which appeared to be coordinated. Taking these observations further in order to understand the ecology and the grey reef sharks' behaviour, the Gombessa 4 expedition, which took place during June and July in 2016, allowed the team to develop and test new scientific procedures and observation techniques.

## Gombessa 3 (2017)

### Antarctica, In the Footsteps of the Emperor Penguin

For his third Gombessa expedition, Laurent Ballesta went to the Antarctic, at the request of Oscar-winning director Luc Jacquet (The March of the Penguins), for a pioneering project which combined exploration, photography and diving. For the first time ever, a team of professional divers were able to dive deep beneath the ice pack in that region. The mission allowed them to capture the very first natural pictures of the underwater ecosystems in the deep waters of the Antarctic.

## Gombessa 2 (2015)

### The Grouper Mystery

The Gombessa 2 mission took place in the southern pass of the Fakarava atoll, a UNESCO Man & Biosphere reserve in French Polynesia where there is a unique gathering of camouflaged groupers from the Pacific. The aim of the mission was to count them (18,000 groupers, a world record) and to photograph and explain their brief yet spectacular spawning ritual. It only happens once a year around the full moon in June. This spectacular event had never been filmed before despite playing a key role in the balance of the ecosystem in the lagoon.

## Gombessa 1 (2013)

### The Coelacanth

The coelacanth is an extremely rare fish, living deep in the ocean. Thanks to two years of intense preparations, Laurent Ballesta and his team were able to pick up the trail of this mythical animal and make a series of observations of live specimens. This first expedition provided the impulse for all future Gombessa expeditions, dedicated to studying some of the rarest and most inaccessible marine ecosystems on the planet.



Gombessa 4



Gombessa 3



Gombessa 2



Gombessa 1



# The team

## portraits of the 3 divers

### who will accompany Laurent Ballesta



**Antonin Guilbert**

is a marine biologist and professional diver. He has been research leader for Andromède since 2007. He has taken part in numerous mapping projects to monitor the quality and management of the marine environment.



**Thibault Rauby**

is a dive instructor and lighting assistant. A leader in the field of "diving tech", he has worked on various audiovisual projects, including all of the documentaries about the Gombessa expeditions.



**Yanick Gentil**

is a diver and underwater cameraman originally from Switzerland. He shot the first sequences of the Gombessa Expeditions. He also accompanied Laurent on the deep dives he did in the Mediterranean, and to -120 m to get the first footage of the coelacanth filmed by a diver.



Enclosed in their pressurised station, in the immensity of the Mediterranean seabed, Laurent Ballesta and his companions are entirely dependent on the rest of the team. The amount of logistics required around the station to allow four divers to remain at 100 metres for hours is considerable and the work never stops.

The surface team need to prepare equipment, process the data collected, monitor the weather conditions, ensure the pressurised modules are functioning correctly and organise the divers' daily tasks... Around 20 people will be responsible for this complex work. They will carry full responsibility for the success or failure of the mission, and the safety of the divers...



# The bathyal station\*

In order to avoid the endless decompression stops that classic deep diving requires, a pressurised station has been made for this expedition to maintain the pressure of the great depths. The divers therefore only need to decompress once at the end of their four-week mission and the process will take three days.

The station will be placed on a barge and pulled by a tug which will travel along the Mediterranean coast between Marseille and Monaco to explore the different sites selected.

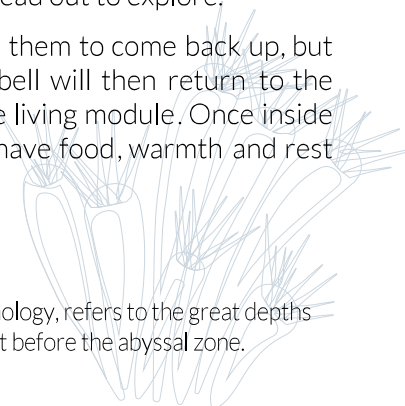
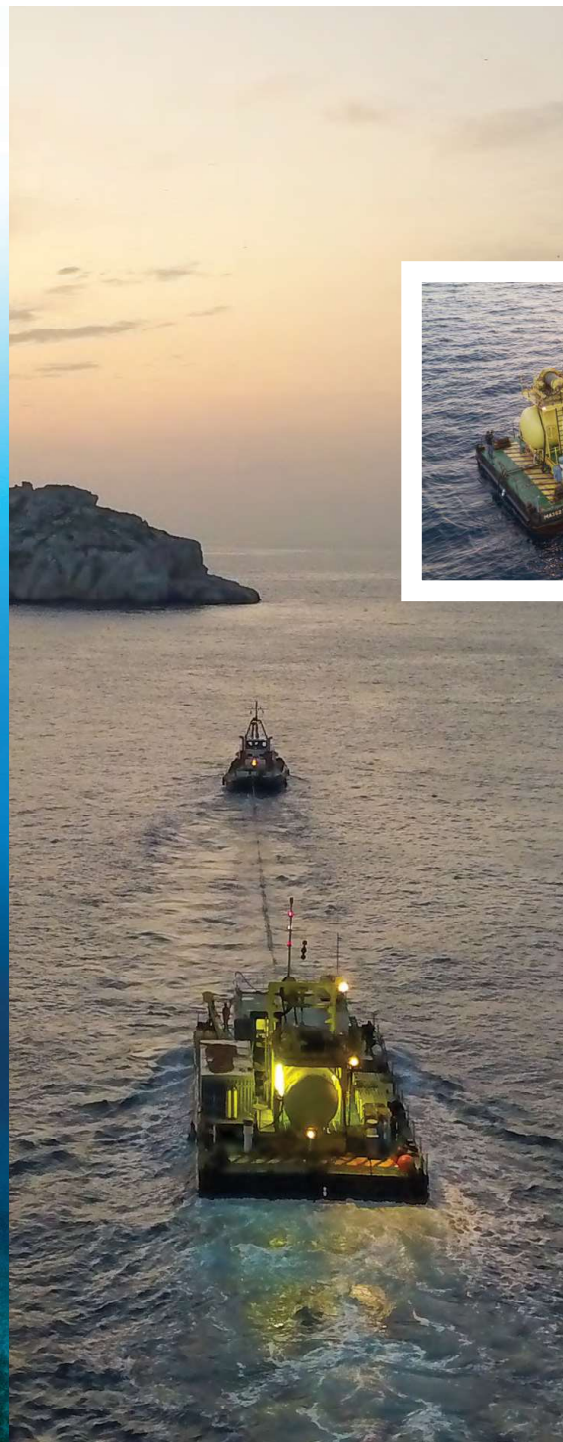
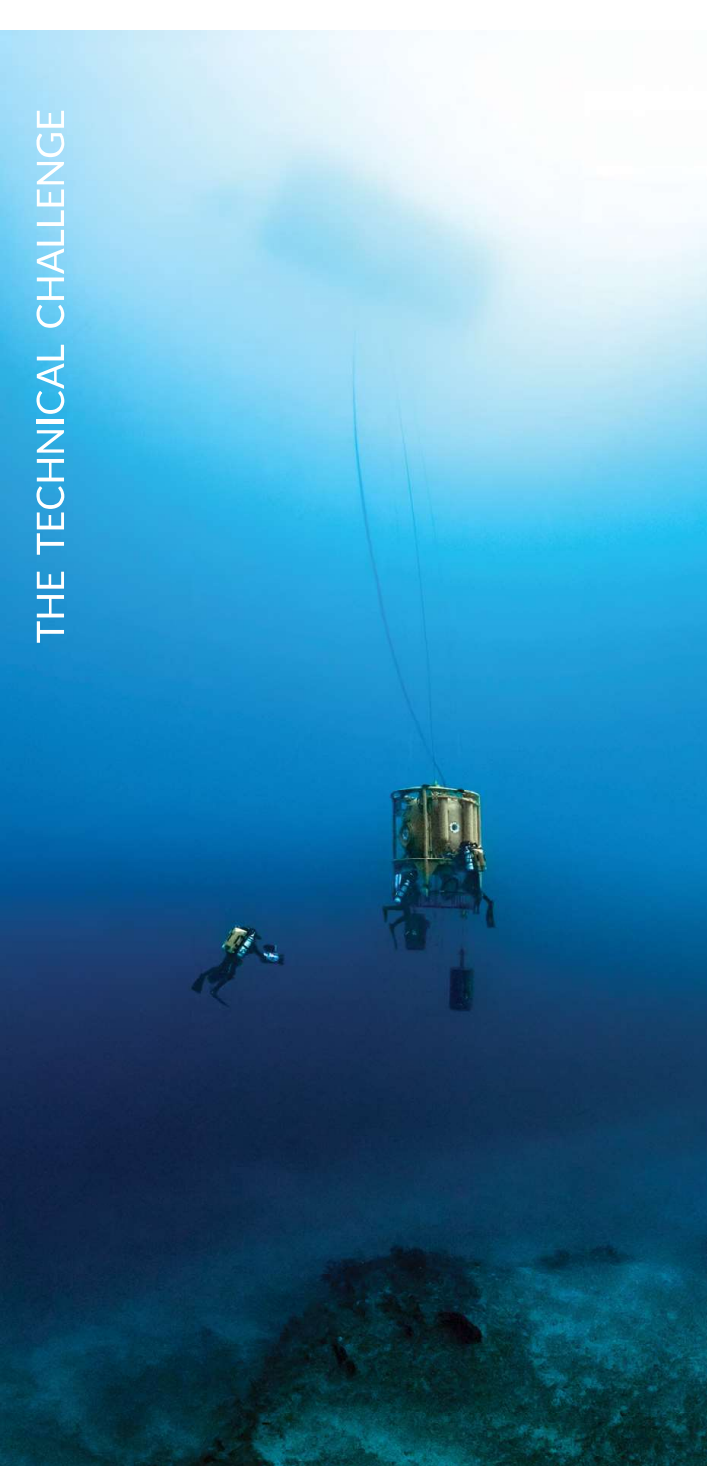
The 10 metre-long station is divided into 3 sections : a living module , a bathroom module and a transition module called a "diving bell" that takes the divers to the seabed.

When the divers want to go down to carry out their missions, they pass through the bathroom module to reach the diving bell. After several checks, the diving bell will disconnect from the rest of the station and a winch system will lower it into the depths .

After donning warm thermal underclothes and drysuits and putting on their rebreathers, they will head out to explore.

For once, it will not be time that forces them to come back up, but hunger , cold and fatigue . The diving bell will then return to the surface so that the team can access the living module. Once inside the bathyal station, the explorers will have food, warmth and rest before their next mission.

\* named after the bathyal zone, which, in oceanology, refers to the great depths ( more than 200 metres below the surface ) just before the abyssal zone.





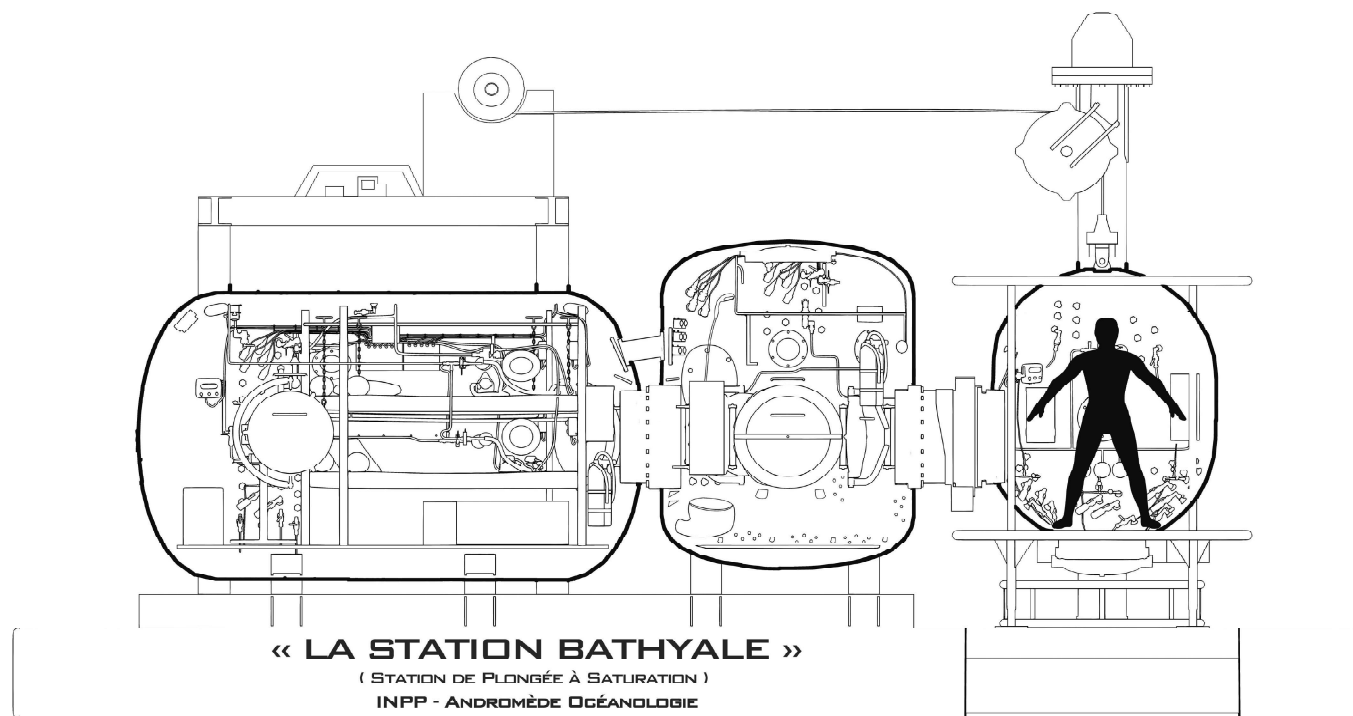
# Living Conditions

« A claustrophobic stay in a steel box from which our adventurers' only escape is to immerse themselves in the dark depths. »

When they are not outside working on their tasks, the divers will live in a 5 m square living module containing two bunk beds, a small table and a few shelves. They will spend most of their time resting and getting their strength back. The living chamber contains a service hatch which will enable the surface team to pass them food and hot drinks.

The explorers enter the bathroom module via 2 airlock doors and a cylindrical passage just 70 cm in diameter and will use the bathroom in front of each other. They will also be able to brush their teeth, take a shower and get dressed here.

Taking another similar passage, they make their way into the diving bell, the smallest space in the module (only about 3 m<sup>2</sup>). Once the diving bell reaches the required depth, the door opens, cold water comes in up to their feet, and the twilight zone extends before their eyes. Our brave explorers can now start another mission ...



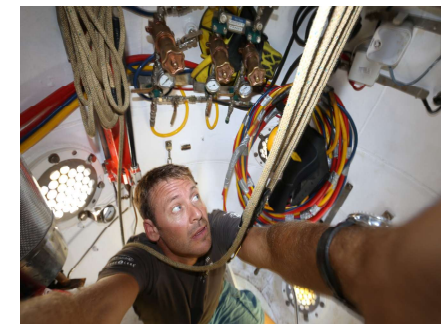
Technical drawing of the bathyal station



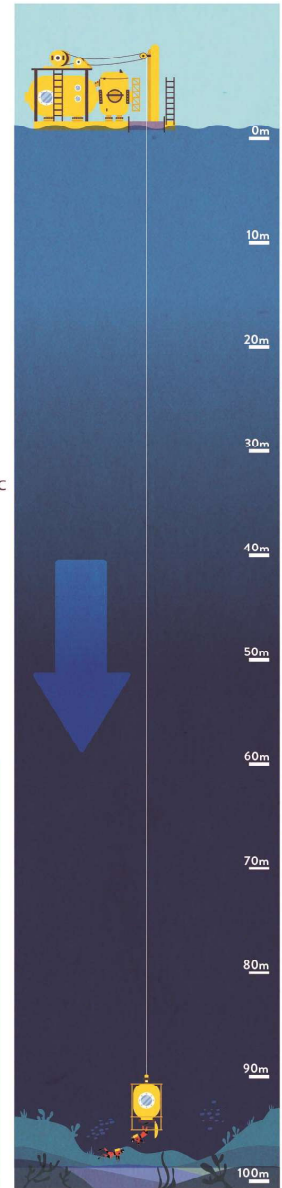
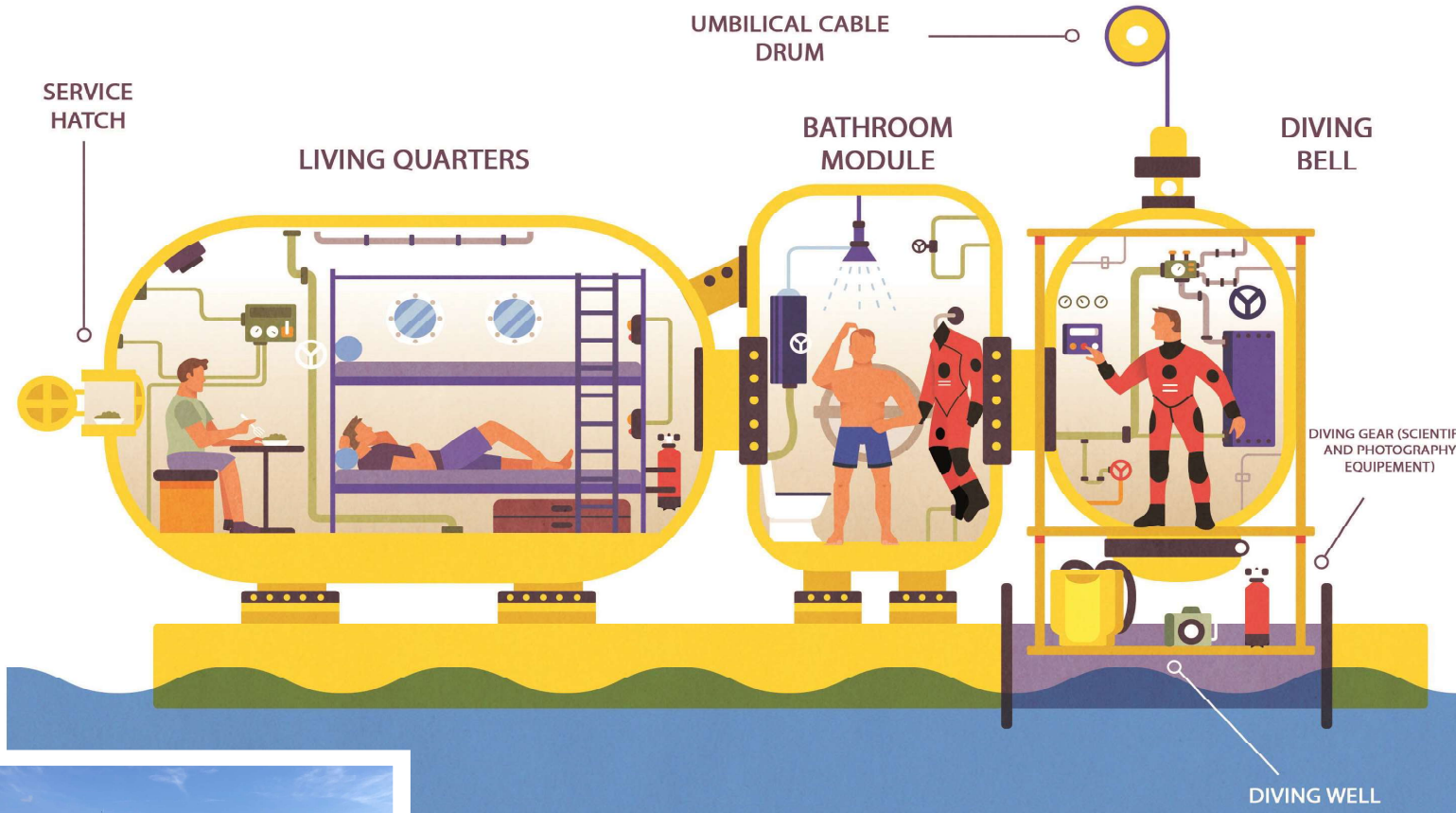
Food hatch



Living quarters



Diving bell



# «THE BATHYAL STATION\*»



\*named after the bathyal zone which, in oceanography, refers to the great depths (beyond 200m), that lie above the abyssal .



# Stages of the expedition

*Gombessa 5 is an expedition that will take place over 28 days. The idea is to cover as many exploration sites as possible by staying 1 to 2 days in each site. It will range across the Mediterranean from Marseille to Monaco, a distance of almost 300 km of coast.*

*The expedition will be divided across 4 exploration areas, all with their own challenges and rewards.*

## ZONE 1: FROM MARSEILLE TO BANDOL

14 sites (examples below)

### 1 Les Impériaux de Riou (60 to 80 m)

In the heart of the Parc National des Calanques, rocky outcrops rising from the great depths to the surface of the islands off Marseille, rich in fish life with exceptionally dense forests of red gorgonians.

### 2 The banc des Blauquières and the banc de l'Esquine (70 to 200 m)

The most beautiful forest of black coral and the largest known concentration of slate pencil urchins.

### 3 The wreck of The Natal, off Marseille (120 m)

A 130 m ocean liner which sank after colliding with a cargo ship in 1917, taking its captain and 103 other victims down with it. The wreck is now a reef rich in fish life and dominated by colonies of pearl oysters.

## ZONE 2 : FROM CARQUEIRANNE TO SAINT-TROPEZ

8 sites (examples below)

### 4 South of the îlot of the Gabinière (60 to 90 m)

Fields of extremely varied bryozoa, like a living forest of porcelain and lace, ecosystems which have disappeared almost everywhere else due to their extreme fragility.

### 5 The banc of Magaud (80 m)

Spreading over several kilometres, one of the largest forests of laminaria endemic to the Mediterranean.



**ZONE3 : FROM SAINTE-MAXIME TO ANTIBES**

9 sites (examples below)

**6 The drop off from the Cap d'Antibes (70 to 100 m)**

Black coral and deep coral, a popular cleaning station for ocean sunfish.

**ZONE 4: FROM ANTIBES TO MONACO**

8 sites (examples below)

**7 Les Roches Saint Nicolas to Monaco (60 to 70m)**

Coralligenous massif of large chameleon sea fans, an isolated and little-known site rich in biodiversity.

**8 The dropp off from the Americains (50 to 200 m)**

Vast vertical underwater cliff riddled with numerous small caves. Many species of deep fish.

● Exploration sites





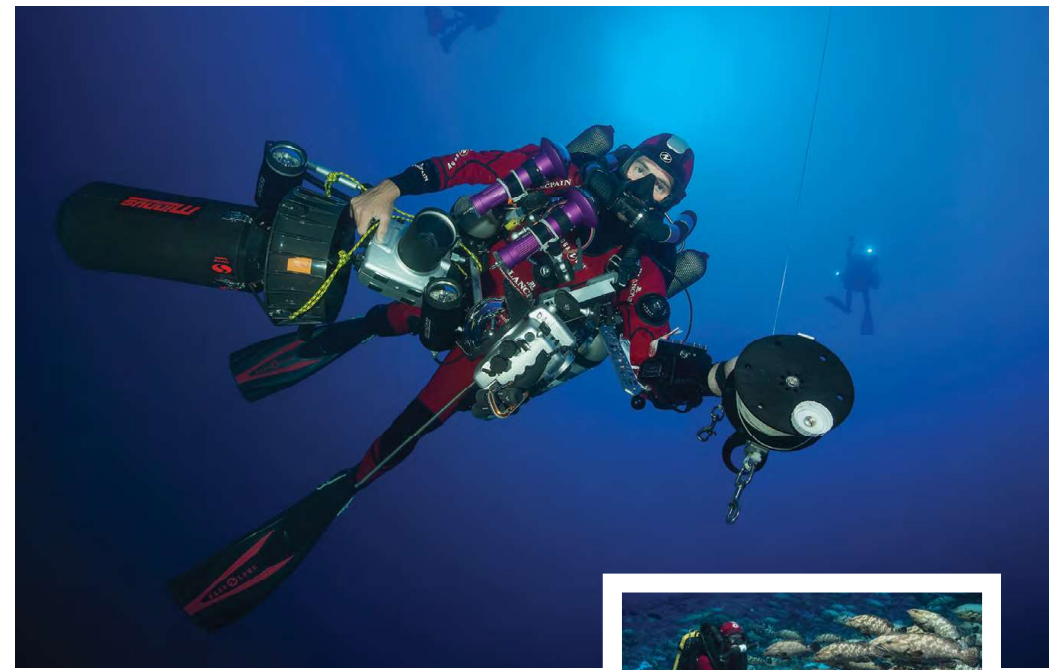
# The key figures

## THE EXPEDITION

a **first in the world**  
**2 YEARS** of preparation  
 from **1st to 28 July 2019**  
 from **Marseille** to **Monaco**  
 one **team** of **20 PROFESSIONALS**  
**1 %** of **LIGHT** from the sun  
 from **60** to **120 METRES** in **depth**

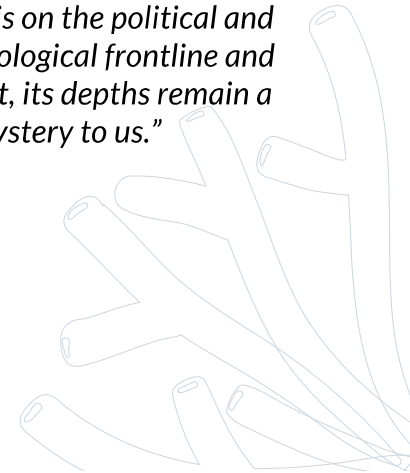
## THE LIVING CONDITIONS

**15 CAMERAS** for **surveillance**  
 one **BATHYAL STATION** measuring **10 m<sup>2</sup>**  
 a **LIVING MODULE** of **5 m<sup>2</sup>**  
**4 DAYS** of decompression



“On this journey along this very familiar coastline, the sense of discovery and exoticism will be even greater when the divers return to the surface with images worthy of the most beautiful coral reefs in the world.”

“The Mediterranean is so familiar to us, it fills our dreams and reveals our worst contradictions. It is on the political and ecological frontline and yet, its depths remain a mystery to us.”



# Follow the adventure...

What secrets is the Mediterranean Sea hiding from us?

What is its real level of pollution?

Is it a dying sea or a living sea?

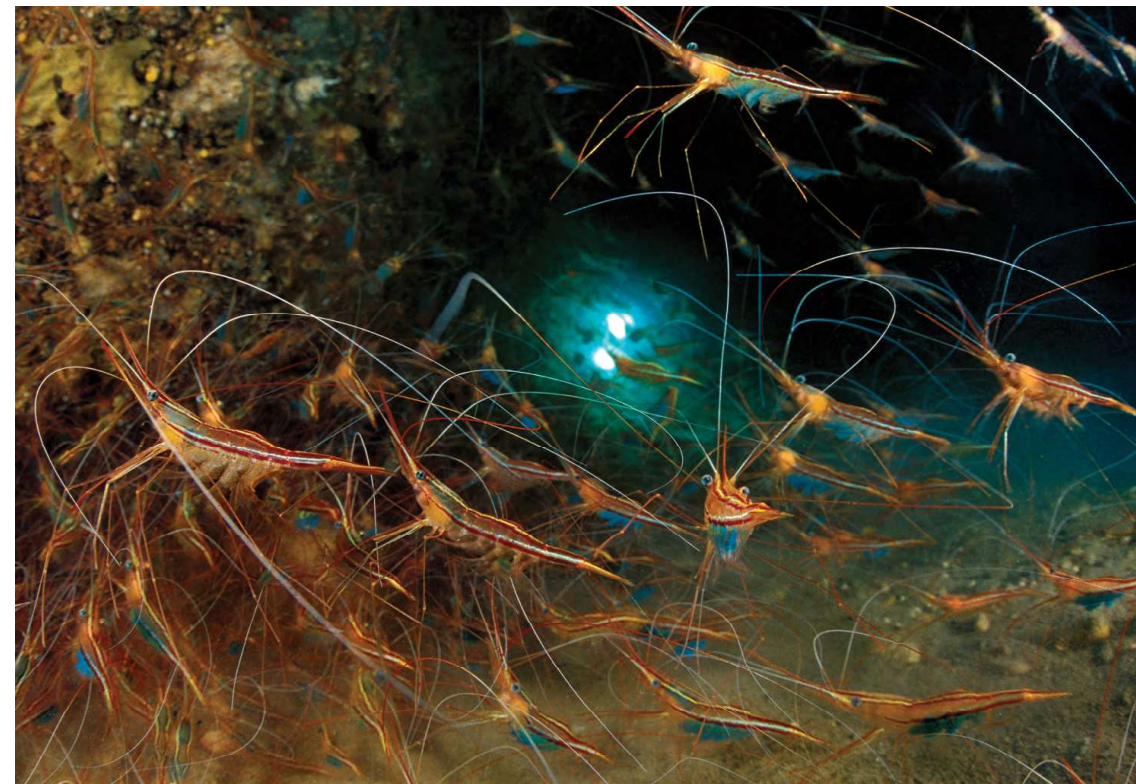
Is it an injured sea or a convalescing sea?

What treasures could man still find there?

- > Because all of these questions are the subject of news stories at the centre of environmental debates.
- > Because the Mediterranean Sea is more than a large sea, it is a small ocean with a great history.
- > Because the Gombessa 5 expedition is a first anywhere in the world, it is full of challenges and a source of hope...

Dive with these four adventurers and discover havens of biodiversity by following this unique mission on social media:

-  Expeditions Gombessa
-  laurentballesta
-  Gombessa expeditions



*Inside the bathyal station , the explorers will be filmed by cameras fixed and controlled remotely . Panoramic 360° cameras will be installed to provide every possible angle.*



*In addition , the four divers will each have an individual “diary cam” which they can confide to, humorously or emotionally , depending on their mood. Consequently , there will be exclusive footage available throughout the Gombessa 5 expedition.*



Gombessa 5 " Planet Mediterranean",  
 a technical challenge dedicated to under-standing,  
 a human and sporting challenge dedicated  
 to raising awareness.

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THE GOMBESSA 5 EXPEDITION "PLANET MEDITERRANEAN" WOULD NOT HAVE BEEN POSSIBLE WITHOUT THE SUPPORT OF :

**JB**  
**1735**  
**BLANCPAIN**  
 MANUFACTURE DE HAUTE HORLOGERIE



FONDATION  
 PRINCE ALBERT II  
 DE MONACO



Since the launch of the Fifty Fathoms – the first modern diving watch – in 1953, Blancpain has never stopped investing in exploration, conservation, and raising awareness about the world's oceans. Over the past 65 years, that commitment has intensified and diversified through multiple initiatives and partnerships, grouped together since 2014 under the name Blancpain Ocean Commitment. To this end, the manufacturer gives its support to major science expeditions, oceanographic exploration projects, environmental forums, underwater photography exhibitions and the production of books and documentary films.

The Monaco Explorations is a platform dedicated to H.S.H. Prince Albert II's commitment to raise awareness and promote durable ocean management and protection.

Created out of a government initiative from the Principality of Monaco, the explorations are an association of the Fondation Prince Albert II de Monaco, l'Institut océanographique, le Centre Scientifique de Monaco and the Yacht Club de Monaco. They support the actions of these institutions through missions around the world which combine scientific research, public mediation and government cooperation.

