

# INSTITUT OCÉANOGRAPHIQUE PAUL RICARD

TO KNOW THE SEA, TO SPREAD  
KNOWLEDGE OF THE SEA  
AND TO PROTECT IT

*since 1966*



INSTITUT PAUL RICARD  
OCÉANOGRAPHIQUE

“  
WHEN IT CAME  
TO MY DREAMS,  
I NEVER HELD BACK

Paul Ricard



*The island of Les Embiez, which still belongs to the Ricard family, has been home to the Institut océanographique Paul Ricard since its foundation.*

The *Institut océanographique Paul Ricard* was founded by Paul Ricard, in 1966, with the help of Dr Alain Bombard, in reaction to one of the first incidents of industrial pollution in the Mediterranean: the discharge of 'red sludge' into the sea off Cassis, on the French Mediterranean coast.

The aim of this non-profit organisation is to know the sea, to spread knowledge of it and to protect it. This was an original concept in the late 1960s: to associate scientific research with awareness-raising public outreach, in particular towards young people.

Today under the Presidency of Patricia Ricard, the founder's grand-daughter, the *Institut océanographique Paul Ricard* is recognised for its role in enhancing the knowledge and management of the coasts. At a time when environmental issues are a major challenge, the Institute continues to embark on innovative actions, seeking sustainable solutions for the Mediterranean.

## THE INSTITUT OCÉANOGRAPHIQUE PAUL RICARD SOME FIGURES \*...

**200**

students carrying out  
research internships  
at Les Embiez.

More than thirty have  
completed PhD theses  
and papers, and most of them  
today hold senior positions

**250**

scientific  
communications

**46**

numbers  
of the Newsletter

**1 million**

visitors to the Aquarium

**600 000**

school children made more  
aware of the need to know  
and to protect the sea

\* since 1974

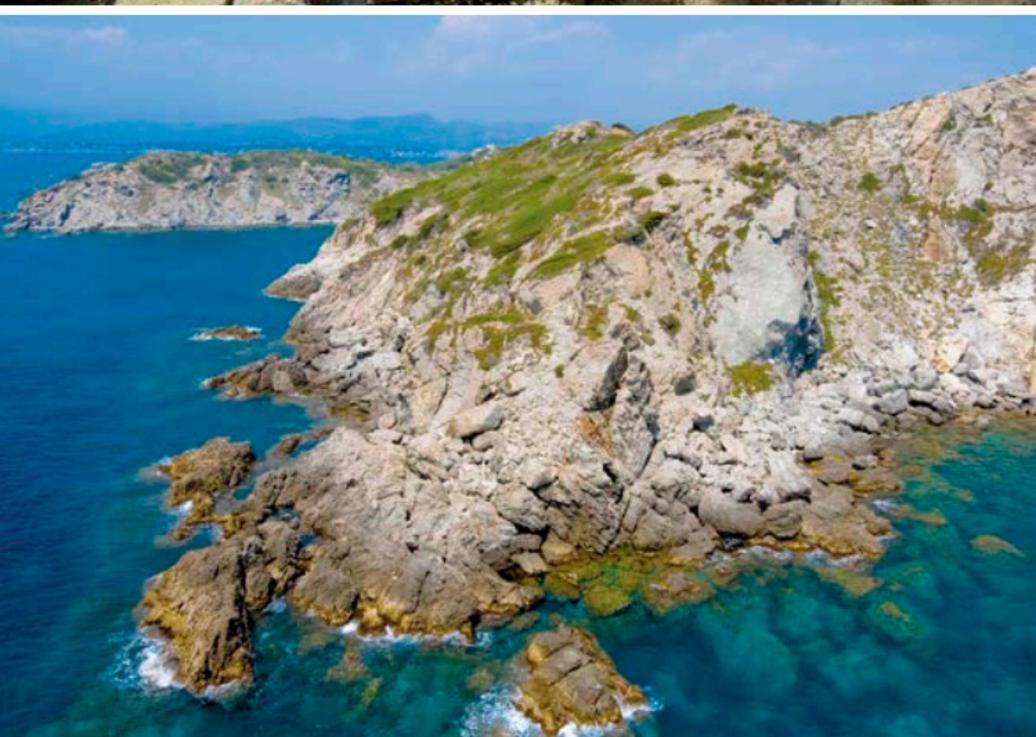
*Paul Ricard's concept is to give others - young people in particular - the means to build their dreams. To say to them: "Dare to believe in the future. What you imagine, others will make real."*

Jacques Rougerie  
Architect-oceanographer, Member of the *Académie des Beaux-Arts*

*Pictures below:*

*Saint-Pierre Fort houses the Aquarium and the public exhibitions.*

*The coasts of the island of Les Embiez exhibit a wide diversity of well-preserved seabeds.*



# RESEARCH

The *Institut océanographique Paul Ricard* runs a research centre with its own team of scientists on the island of Les Embiez, on the French Mediterranean coast, near Toulon.

For thirty years, research was mainly focused on the quality of coastal waters with regard to health issues, with research programmes on sewage discharge and hydrocarbons pollution.



Today, the research focus is more on:

- **marine biodiversity and the impact of climate change;**
- **the preservation of heritage species** such as the grouper, the fan mussel and the seahorse;
- **the management and monitoring of living resources:** the edible sea-urchin and fish species of market value;
- **ecological restoration:** the installation of artificial reefs to restore life to degraded environments;
- **the study of solutions inspired by nature:** to replace the toxic substances in anti-fouling paints used on the hulls of boats with natural molecules derived from the marine environment;
- **the impact of emergent molecules** such as endocrine disruptors on the development of young marine organisms, such as the sea-urchin and the seahorse.

This research is in phase with the integrated and sustainable management of the natural spaces and marine resources of the planet: a common heritage to be safeguarded, managed and, where necessary, restored.

To this end, competencies are being developed in fields ranging from experimental aquaculture to ecological engineering, molecular biology, genetics...

# INVENTORY AND ECOLOGICAL MONITORING SURVEYS

*Edible sea-urchin (count survey) / Mediterranean dusky grouper / Fan mussel / Seahorse*



## RESEARCH

### *Quality of the water, preservation of biodiversity, climate change*

• **From 1975**, the *Institut océanographique Paul Ricard* contributed to the development in France of experimental shellfish rearing, as a prelude to the commercial farming of shellfish, such as clams. Public outreach campaigns were run to promote the construction of sewage treatment plants.

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• **1979** - The *Institut océanographique Paul Ricard* launched the Mediterranean scientific journal *Vie Marine*, which later became *Marine Life*.

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• **From 1981**, the *Institut océanographique Paul Ricard* participated in the development - for *Elf Aquitaine* - of an innovative and natural process to speed up the degradation of black tides by marine bacteria. This was used successfully in 1989 to clean up the polluted beaches of Alaska after the grounding of the tanker *Exxon Valdez*.

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• **From 1990**, the *Institut océanographique Paul Ricard* has dedicated several research programmes to climate change issues.

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• **1993** - The *Institut océanographique Paul Ricard* took part in the actions of the Grouper Research Group, which won a moratorium banning the spear fishing of this species in the western Mediterranean. The success of this measure is evidenced by the strong increase in grouper populations. The Institute also played a role in achieving protected species status for the fan mussel in the Mediterranean.

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• **1995** - The *Institut océanographique Paul Ricard* was awarded a *Grand Prix* by the French *Académie des Sciences*.

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• **2007** - The Institut Océanographique Paul Ricard participated in the WWF France programme: 'Cetaceans in the Mediterranean'.

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• **2014** - The *Institut océanographique Paul Ricard* is a founder member of the Ocean & Climate Platform, which contributed to the significant progress made on climate change at COP 21 in 2015 in Paris.



# INFORMATION OUTREACH

The scientists from the *Institut océanographique Paul Ricard* play a role in spreading knowledge, at various levels:

- **at a scientific level**, with publications in specialised journals and websites, organizing and taking part in conferences, congresses, seminars and lectures.
- **for the general public**, with the publication of general interest works, documentary films, talks, exhibitions, etc.
- **for school children**, using a range of educational materials.



*Patricia Ricard is the Institute's ambassador for the sea and for sustainable development, in France and abroad.*



*Some 25 000 visitors, including 5 000 school children, are welcomed each year at the Aquarium.*

## OUTREACH

### *From the real ... to the virtual*

• **From 1974**, the *Institut océanographique Paul Ricard* organized, in partnership with teachers, *Clean Up the Beach Days (Journées Propreté des Plages)*, at Les Embiez. School children performed the symbolic action of collecting a few pieces of detritus washed up onto the shore by the sea. At the time, this hands-on outreach action to raise awareness of pollution issues was considered avant-garde, if not unique, in France.

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• **From 1979 to 1985**, the *Institut océanographique Paul Ricard* presented the travelling exhibitions *Inhabit the Sea*, then *Live with the Sea (Habiter la Mer, Vivre avec la Mer)*, both in partnership with the architect Jacques Rougerie. Over a period of 18 years, more than a million people, in France and abroad, discovered his prophetic vision of a Civilisation of Sea People (*Civilisation des Mériens*).



*Model of an undersea village from the exhibition: Inhabit the Sea.*

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• **1996** - The *Institut océanographique Paul Ricard* produced *Kampi - Aventures in the Mediterranean*. Designed for secondary school children, this educational software was the first on the Mediterranean to be published in France. It was awarded the *Palme d'Or* at the World Underwater Image Festival.

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• **2014** - The *Institut océanographique Paul Ricard* made available the whole of its data resources as open data on its website: works for the general public, documentary films, scientific papers, etc. This free access to knowledge has been further developed by a strong presence in the social media networks. In 2001, the Institute launched an online magazine, *Océanorama*.



# PATRONAGE, PARTNERSHIPS

Since its foundation the *Institut océanographique Paul Ricard* has had the benefit of the patronage and constant support of the Ricard corporation, a company of the Pernod Ricard group. Over the past years, major French corporations such as *EDF*, *Veolia-Eau*, *Caisse d'Épargne\** and *Roquette* have provided support for specific programmes. And then there are the scientific partnerships with:

- **major French and international research institutes:** the Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology (IMBE), the Research Institute for the Environment and Marine Sciences of the Catholic University of Valencia (IMEDMAR), Prince Albert II of Monaco Foundation, Kotor Institute of Marine Biology (Montenegro);
- **universities:** Marseille, Perpignan, Toulon, Valencia (Spain), Pavia (Italy), Busan (South Korea, via Pernod Ricard Korea);
- **public sector:** Provence-Alpes-Côte d'Azur Region, *Conseil Départemental du Var*, *Communauté d'Agglomération Toulon Provence Méditerranée*, the water management agency *Agence de l'Eau Rhône Méditerranée Corse*, European Fisheries Fund.

\* For the construction of a multi-purpose experimental hatchery, the *Institut océanographique Paul Ricard* and the bank *Caisse d'Épargne Côte d'Azur* were in 2011 awarded the first *Trophées du Mécénat d'Entreprise pour l'Environnement* (French environment ministry Corporate Patronage for the Environment Trophies).



“ I think that cultural patronage was the architect of our civilisations, it is environment-focused scientific patronage that will save them.

Patricia Ricard  
President of the *Institut océanographique Paul Ricard*

Our actions are designed to be in phase with an approach of Corporate Social Responsibility (CSR) and sustainable development (...): with regard to all the stakeholders in the entreprise and, of course, our environment.

Philippe Savinel,  
Chief Executive Officer Ricard

# DID YOU KNOW?

## *Several million*

The number of eggs released into the sea by a female sea-urchin, which after fertilisation will produce only a few juveniles on the seabed.

## *250*

The number of juveniles (7 to 12 mm long) released, on average, by a male seahorse in the natural environment. Only 5 baby seahorses out of 1000 survive.

## *45 years*

The age of the oldest fan mussel known in the Mediterranean (Port-Cros National Park - south-east France).

## *30%*

The rate of atmospheric carbon dioxide absorbed by the world ocean, the main climate regulator.





*The Mediterranean, a virtually enclosed sea, is the sea model which can best enable us to understand the functioning of the world ocean. It is in the front line of exposure to the impact of climate change.*

*If everyone is committed to it, the sustainable management of this outstanding environment can be achieved.*

*But this means that the Mediterranean, which has become the target of so much covetousness, must again become a haven of peace and liberty.*

Prof. Nardo Vicente  
General Delegate, Scientific Counsellor,  
*Institut océanographique Paul Ricard*

*Pollution, it's quite simple:  
it is what Man invents  
but Nature is unable to undo.*



Dr Alain Bombard  
The first *shipwreck volunteer*  
to have crossed the Atlantic solo  
in an inflatable dinghy in 1952

# VISIT THE AQUARIUM

Open every day, opening times on the website



Ile des Embiez

Landing stage  
Port of Le Brusç

Six-Fours-les-Plages

Ile du Grand Gaou



**INSTITUT PAUL RICARD  
OCÉANOGRAPHIQUE**

Institut océanographique Paul Ricard  
Ile des Embiez

83140 Six-Fours-les-Plages - France

Tel. +33 494 34 02 49

[embiez@institut-paul-ricard.org](mailto:embiez@institut-paul-ricard.org)

[www.institut-paul-ricard.org](http://www.institut-paul-ricard.org)

[www.lesilespaulricard.com](http://www.lesilespaulricard.com)

