



## Mediterranean Small Islands Initiative

# MEDITERRANEAN SMALL ISLANDS, HOT SPOT<sup>2</sup>

## Preserve the islands

In the Mediterranean Sea, there are about 10 000 islands and islets, of whom more than 1000 are located on the only western basin. These ecosystems, wildlife laboratories, shelter a high number of species, and represent a real stake for the protection of the Mediterranean biodiversity. On these closed spaces, everything is accentuated: tourist pressure, climate change, pollutions, invasive species ... The smallest disturbance can disorder the learned dosage that the nature has concocted during many centuries. However, only 35 archipelagos are officially managed and many others have not even been studied.

Since 2006, the Conservatoire du Littoral, French coastal protection agency, coordinator of the Mediterranean Small Islands Initiative, contributes to the protection of these micro-territories by setting-up concrete actions on field and by enhancing exchange and sharing of experience and knowledge between the site managers and experts of the whole Mediterranean Sea.

## The Mediterranean sea : a unique biodiversity

Testimony of its incredible wealth, the Mediterranean biodiversity is one of the 34 hotspots of the world biodiversity.

Although representing only 0.8 % of the world's ocean area, it

constitutes one of the major reservoirs of the marine and coastal biodiversity (28 % of endemic species and approximately 7.5 % of the marine fauna and 18 % of the marine flora).

## PIM=Hotspot<sup>2</sup>

The Mediterranean Small Islands are a hotspot for Mediterranean biodiversity, which are a hotspot at the world scale; a double recognition which implies to protect them.

	Nombre d'espèces	Espèces Endémiques	% d'endémisme
Espèces végétales	22 500	11 700	52 %
Avifaune	500	25	5 %
Mammifères Terrestres	220	25	11 %
Reptiles	225	80	34 %
Amphibiens	80	30	31 %

Sources : <http://www.biodiversityhotspots.org>

Concerning the terrestrial ecosystems, the Mediterranean Basin contains 10 % of the world vegetal species and many animals or plants can be founded nowhere else.

## SOME FIGURES ABOUT SMALL ISLANDS

They are between 6000 and 10000 islands and islets in the Mediterranean Sea, of which more than 1000 are located on the only western basin. The coastline of the whole Mediterranean islands represents 18000km, so approximately 39% of the entire Mediterranean coastline, even if the total island area is only 4% of the Mediterranean Sea surface.



« I believe that small islands can be the barometers of the world... »

James A. Michel, President of the Seychelles

## Refuges for species :

Of course, flora and fauna of the Mediterranean islands don't have the extravagance of the species of tropical forests. Here, no fineries or flashy colors. The species make discreet and are adapted to particular living conditions, as the windy weather, the salt or the heat. And if they are used to hiding themselves, it is to make us better appreciate their wild beauty.

This incredible natural wealth is nevertheless affected by the urbanization, the industrialization and the tourism. The Mediterranean basin is the first world tourist destination with about 250 million visitors. On 433 million inhabitants, 150 millions live in the coastal regions, which represent 7 % of the world population. In other terms, 33 % of the Mediterranean population lives on 13 % of the waterside countries surface.

The small islands, with their difficulties of access, constitute refuges and reproduction zones

for numerous rare and threatened species, and are centers of distribution for numerous species with market value, like fishes. That's why it is so important to protect them, at the national and international level.



## SCIENTIFICALLY PROVED :

A scientific study of the IMEP (Mediterranean Institute of Ecology and Paleoecology) on 39 Corsican islands with a total surface of 2.5 km<sup>2</sup> (about 0.025 % of the total surface of Corsica), has inventoried 534 vegetal species, which represents 21.26 % of the totality of the Corsican species; a surprising result considering the very small surface of these islands. This demonstrates all the importance of the small islands of the Mediterranean Sea in the conservation of the biodiversity.

## Wildlife laboratories :

Since Darwin, islands are considered as privileged fields of investigation and research for the study of the origin and the evolution of the population, animal and vegetal species. They are real wildlife laboratories.

Relatively protected, until now, from anthropological pressures exercised on the continent, they still reflect the image of the Mediterranean landscapes and contain particular flora and fauna habitats.

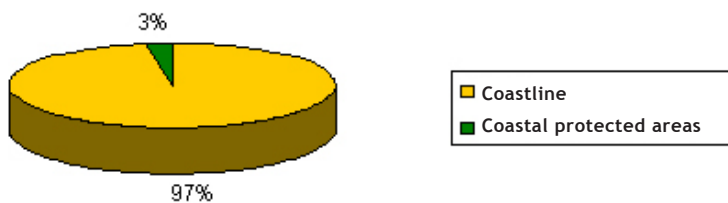
On the small islands of the Mediterranean Sea, like most of the isolated lands, species have developed particular adaptations to their environment.

Functioning in closed system, the genetic admixture is less important in these territories. The population has adapted itself to the local conditions and the natural selection operates, provoking simple physical modifications or sometimes, the differentiation of new species.

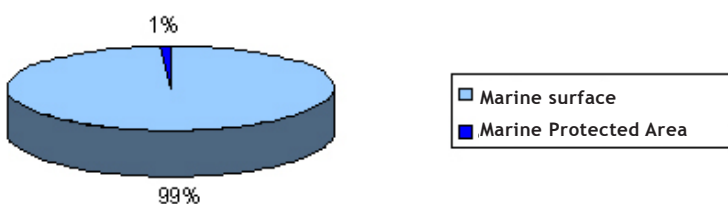
It is notably the case of numerous lizards.

In the islands of the Galite archipelago, in Tunisia, skinks (lizards with short legs moving like a snake) have developed a radical adaptation to fight against a problem of food resource. Insectivores at the beginning, their stimulus of predation being activated by the movement of preys of small sizes, they have nevertheless crossed a considerable evolutionary and behavioral step by feeding themselves, part of the year, with dead birds stolen in the nests of Eleonora's falcons.

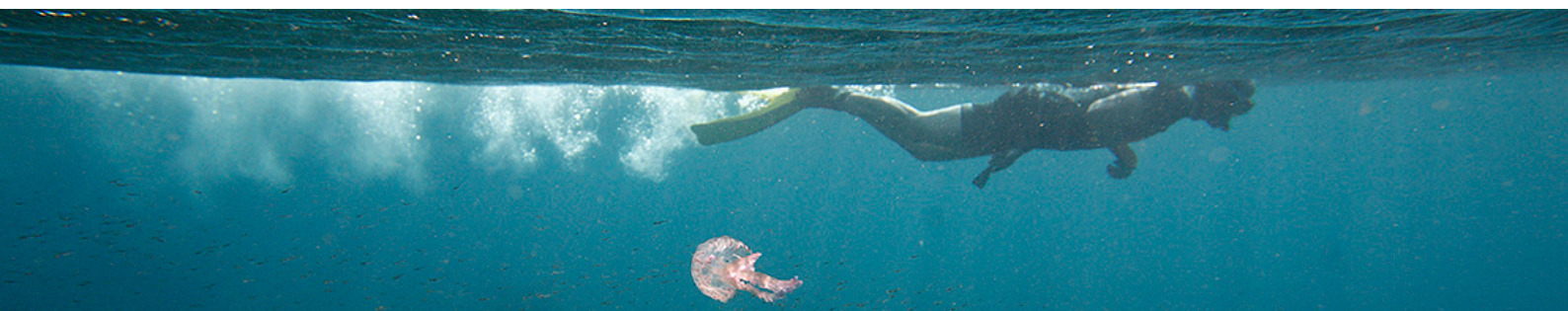
The protected areas hardly cover 3 % of coastline.



The protected areas cover less than 1 % of the marine surface.



Sources: UNEP-PAM, 1996 in LOPEZ A. et CORREAS E., 2003



*"Often shielded from strongest anthropic pressures, the small islands have suffered less than somewhere else of the human impacts and can offer us today an authentic and sincere image of the Mediterranean landscapes. It is only on this unique and inestimable capital, rich of all the human history, that it is necessary to build a conservation policy according to the measure of the stakes and the threats which glides over these ecosystems."* Christophe Ducastel, FFEM



## Marin birds paradise!

The small islands of the Mediterranean Sea represent a nesting place for numerous emblematic birds like shearwaters, Eleonora's falcons or ospreys. They shelter for example the three most important world colonies of three procellariidae species (small cousins of the albatros) endemic of the Mediterranean Sea: the island of Zembra in Tunisia for the Cory's Shearwater, the island of Tavolara in Sardinia for the Yelkouan Sheawater and the island from Filfla to Malta for the Storm Petrel. Very sensitive to disturbance, these sea birds spend the major part of their offshore life and find refuge on islands to insure their reproduction, far away from the human disturbances and the predation due to introduced

species or linked with man like, black rats, dogs or cats. Islands constitute also stopovers on the ways of migration. Every year, hundreds of thousand birds make it a well-deserved stopping place. According to the Strategic Action Plan for the conservation

of the biological diversity in the Mediterranean (SAP-BIO) of the RAC-SPA (Action Plan for the Mediterranean Sea), because of their importance for the sea and migratory birds, the small islands thus deserve a priority attention



## The Pim Initiative, a new approach

Considering all of these reports and of so many particularities, the Conservatoire du Littoral, benefiting of more than 15 years of cooperation actions and from assistance in the countries of the Mediterranean Basin, in partnership with the Conservatoire-Etudes des Ecosystèmes de Provence (administrator of the islands of Marseille) and the Nicolas Hulot foundation, has decided to set up an initiative for the promotion and the assistance to the management of the small islands of the Mediterranean Sea.

The initiative PIM is based on the exchange and the sharing of knowledge. It aims in setting-up an effective and practical management of the micro-insular spaces, thanks to the realization of scientific and

technical missions on field in order to develop and support protection projects.

The initiative does not wish to go into the logic of project, but rather to work on a long-term period. Because if the objective of the

initiative is to put together other administrators, scientists, or experts of these natural endangered spaces, its first wish is to set up field actions, to experiment and to innovate. Here, priority is given to concrete, simple and pragmatic actions.

Guards, technicians, scientists, naturalists, representatives of administrations or associations meet among them for the same purpose: promote the protection of the small islands of the Mediterranean Sea and set up efficient actions having a real impact on the insular ecosystems and the local population.



*Real concentrated of biodiversity, the Mediterranean small islands can become the symbols of a collective awareness of the necessity of protecting these fragile spaces, micro-continent, concentrating all the stakes and the expectations for the protection of the Mediterranean Sea. What a fabulous challenge for the future.*



## An unic aim, 5 programmes

The initiative PIM is declined in 5 programs to better understand, better act and better share.

**-Sentinel Islands :** Monitoring the impacts of the global changes in the Mediterranean small islands

**-Albatros Project :**

Implementation of protocols and monitoring actions of the sea birds of the Mediterranean Sea.

**-Pharos Project :**

Implementation of an Observatory of the Mediterranean islands «and of communication tools in order to exchange knowledge and to make the public aware of the protection stakes of the small islands of the Mediterranean Sea.

**-Terra Cognita :** Improvement of the scientific knowledge about insular species and habitats, realization of books about fauna and flora, marine and terrestrial of the Mediterranean Sea.

**-Islands wokshop :** assistance to the management of natural spaces of the Mediterranean small islands by the implementation of concrete field actions, trainings and experimental sites

## Results :

Since 2006, the initiative PIM has operated in more than about fifteen natural spaces located in the countries on the whole western Mediterranean basin and mobilized more than 150 stakeholders (site managers, experts, administrations, NGOs ...). It has developed numerous cooperation actions with Algeria, Spain, Libya, Malta, Morocco, Sardinia and Tunisia.

## Pilot sites :

From a practical point of view, whether it is in term of management or conservation, islands present big advantages. Indeed, on islands, everything is «simplified»: the ecosystems, the land property or the methods to monitoring fauna and flora. They can thus play the role of experimental site to set up simple measures of protection and management, who can then be re-applied to the whole Mediterranean coastline.



## PROTOCOL ON INTEGRATED COASTAL ZONE MANAGEMENT IN THE MEDITERRANEAN SEA (MADRID, JANUARY 20-21, 2009), BARCELONA CONVENTION

Article 12, Islands

The Parties undertake to accord special protection to islands, including small islands, and for this purpose to:

- promote environmentally friendly activities in such areas and take special measures to ensure the participation of the inhabitants in the protection of coastal ecosystems based on their local customs and knowledge;
- take into account the specific characteristics of the island environment and the necessity to ensure interaction among islands in national coastal strategies, plans, programmes and management instruments, particularly in the fields of transport, tourism, fishing, waste and water.

## AGENDA 21, ADOPTED AFTER THE EARTH SUMMIT HELD IN RIO IN 1992

Chapter 17 : Protection of the Oceans, all Kinds of Seas, Including Enclosed & Semi-enclosed Seas, & Coastal Areas & the Protection, Rational Use & Development of their Living Resources

17.129. Small island developing States, with the assistance as appropriate of the international community and on the basis of existing work of national and international organizations should:

- Study the special environmental and developmental characteristics of small islands, producing an environmental profile and inventory of their natural resources, critical marine habitats and biodiversity;
- Adapt coastal area management techniques, such as planning, sitting and environmental impact assessments, using Geographical Information Systems (GIS), suitable to the special characteristics of small islands, taking into account the traditional and cultural values of indigenous people of island countries;

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To know more about it, meeting on the website of the PIM Initiative :

<http://www.initiative-pim.org>

Drawings by Laurence Malherbe  
Photos by Louis Marie Préau



Conservatoire  
du littoral

