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## Press Release

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### 13 key Mediterranean marine areas in need of protection

Rome, Italy – WWF, the conservation organization, today released results of a new study highlighting the 13 most important areas in need of protection in the Mediterranean sea, and urged governments to commit to the protection and sustainable management of at least 10% of the surface of marine and coastal areas in the region over the next 10 years.

According to the WWF study, “Mediterranean Marine Gap Analysis”, the three major threats to the Mediterranean sea as a whole, and in particular these 13 important sites, are uncontrolled coastal construction, pollution from industries and intensive agriculture and oil spills, and over-fishing. As part of a call to all the governments concerned to ensure the protection and efficient management of these sites, WWF recommended that coastal trawling from 0 to 50 m of depth (where 80 % of marine biodiversity is found) be banned and enforced throughout the Mediterranean, that coastal construction in any of these 13 areas be prohibited, and for international pollution legislation to be applied across the board in the Mediterranean.

“The Mediterranean, the oldest cradle of European civilisation, is also the region with the highest number of endemic species in the world, after tropical regions. These 13 areas should be absolutely protected if we want to save the Mediterranean’s unique heritage,” said Paolo Guglielmi, Marine Officer, WWF Mediterranean Programme Office.

The study shows that 14% of the Mediterranean coast is already heavily damaged – some areas are so degraded that they can be classified as “lost”. They include the Italian Adriatic coast, the coast between Syria and the mouth of the Nile, and the coast which links the mouth of the Rhône in France to Spain, and on the Spanish coast from Barcelona to Valence. Currently less than one percent of the coastal Mediterranean sea is protected. The most pristine of the sites highlighted by the study are the Sirte and Cirenaic coasts in Libya, the Aegean sea, and Turkey’s Cilician coast. However, all could easily join the ranks of the “lost” without the proper protective measures.

The study also concluded that there are three major areas of importance for threatened species: the Aegean sea and the Turkish Mediterranean coast for monk seals and sea turtles, and the Sardo-Corso-Liguro-Provençal Basin for dolphins and whales.

The method used for the study has been applied on land in the past, but never before in the marine environment. In this instance, it assessed the biodiversity of the sea floor, important species, and also major threats like pollution “hot spots”, major harbours and large coastal cities. In this way, the WWF study was able to calculate the areas of greatest biological richness that are most threatened.

“This tool will be a key instrument for the future work of institutional bodies to drive Mediterranean nations to increase the protection of their coasts.” said Lucien Chabason, Coordinator of the MAP (Mediterranean Action Plan) at the United Nations Environment Programme (UNEP).

**more...**



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Background information, fact sheets on each area, maps and pictures are available on [www.panda.org](http://www.panda.org).  
B-Roll is also available on request

**Notes to Editor:**

The 13 areas identified for urgent protection are: Alboran sea (Spain, Morocco, Algeria); Balearic Islands (Spain); Liguro-Provençal coast (France, Italy, Monaco); Corso-Sardinian coast (France, Italy); Southern Tyrrhenian coast (Italy); Dalmatian coast (Croatia); Eastern Ionian coast and islands (Albania, Greece); Aegean sea (Greece, Turkey) and Anatolya coast (Turkey); Cilician coast (Turkey) and Cyprus Island coast; Cyrenaica (Lybia); Gulf of Sirte (Libya); Gulf of Gabes (Tunisia); Algero-Tunisian coast (Algeria, Tunisia).

Within these areas, WWF has selected sites of smaller size for focusing its conservation efforts. Those sites are located in : Croatia, France, Greece, Italy, Monaco, Morocco, Spain, Tunisia and Turkey.



## The Mediterranean : 13 key areas to protect

### Alboran Sea Spain, Morocco, Algeria

#### MAIN FEATURES

**Riches:** This site is the **entrance door to the Mediterranean** Sea from the Atlantic Ocean. **All surface waters bringing new life to the semi-enclosed Basin enter through here.** The Alboran Sea hosts one of the richest mix of marine & coastal Atlantic and Mediterranean fauna and flora. **All the most important pelagic commercial fish species**, like swordfish (*Xiphias gladius*) and blue-fin tuna (*Thunnus thynnus*) are migrating into the Mediterranean through these waters. Whales, dolphins and sea turtles also use this corridor to enter the Mediterranean and are particularly abundant.

**Threats:** The entire area is surrounded by the Spanish coast to the north and the Moroccan coast to the south. Human impacts are numerous: pollution from **industry, tourism and urban areas** in the north and **organic chemicals** run off from intensive agriculture in the south. **Over-fishing**, particularly with the devastating pelagic driftnets, and frequent illegal **cleaning of oil tankers** are the main threats for the pelagic domain.

#### CONSERVATION STATUS

According to WWF's new study, the percentage of coastline directly facing biologically relevant areas is 70%, while 21% is the overall percentage of the heavily degraded coast in this area. 16% of the degraded coast is facing those important areas for biodiversity. **Only 3 marine protected areas** exist in this area.

Alboran Island and Cabo de Gata have been declared protected areas by the regional Government of Andalusia. Al Hoceima in Morocco, west of Melilla, is still waiting for the official institution at national level, and its management, monitoring and protection systems are very weak.

*Considering the high level of marine biodiversity and the high level of threat, the present level of conservation is not sufficient to ensure the long term viability of this ecosystem.*

**WWF calls governments concerned to co-operate together to give to the entire Alboran Sea a special status of sustainable management zone, with specific restrictions for fisheries and pollution and core protected areas.**

#### WWF OBJECTIVES

##### Al Hoceima

**Goal: to put in place a sustainable management for marine and coastal resources; to implement a strong network of local environmental NGOs.**

A WWF field project is starting to support the official establishment of the National Park and the effective management of its marine component. Awareness, capacity building and environmental education activities are foreseen to set the bases of a sustainable development. Contacts and collaborations have been established with AZIR (NGO) and the local Authorities.

The area has been unanimously recognised as one of the best of the Basin in terms of species richness and of coastal and sea bottom landscapes. The presence of species like ospreys (*Pandion halieetus*), Audouin's gull (*Larus audouinii*) and yellow-legged gull (*Larus cachinnans*) has to be noted. More than 100 species of fish are present, with groupers (*Epinephelus spp.*) as the most representative, but also with important colonies of red coral (*Corallium rubrum*). The monk seal (*Monachus monachus*) has also been observed in this site.

##### Chafarinas Islands

**Goal: inclusion in the list of NATURA 2000 sites is advocated (it is yet only in the WWF shadow list)**

Indeed 3 marine habitats listed in the EU Habitat Directive are present here. The islands are not inhabited apart from a military base. They host protected species like the Audouin's gull (*Larus audouinii*), (*Calonectris diomedea*). The monk seal (*Monachus monachus*) has been spotted here and several other marine flora and fauna endemic species, like sea grass beds (*Posidonia oceanica*) and ferrous limpet (*Patella ferruginea*).



## The Mediterranean : 13 key areas to protect

### Balearic Islands Spain

#### MAIN FEATURES

**Riches:** Mostly known around the whole world as a **major tourism destination**, these 5 islands, Mallorca, Menorca, Ibiza, Formentera and Cabrera, still host **exceptional and natural beauties**. Extensive and well conserved posidonia meadows (*Posidonia oceanica*) cover most part of their coastal sea beds, while rocky cliffs, sea caves, coastal lagoons and sand banks complete the list of other important marine habitats recognised by the EU Habitat Directive. Thanks to their geographic position, along the main **migratory routes of the large pelagic fishes like tuna and swordfish**, their waters are considered particularly important from a fisheries **stand point**. The presence of a high number of small and large cetaceans, in particular the rare **Sperm whale** (*Physeter macrocephalus*), **sea turtles** (*Caretta caretta*) and of the endemic Mediterranean shearwater (*Puffinus yelkouan mauretanicus*), increases the natural value of these archipelagos.

**Threats:** The higher threat to this area is surely represented by **tourism and high fishing effort**. **Hotels and vacation houses** have spread out along their coastline in a out of control way, adding in a significant way their pollution and impact load to the one coming already from the intensive use of **fertilizers and pesticides in the intensive agriculture** activities carried out in the islands. Bottom illegal **trawlers** are causing the major impact on fish stock and on the posidonia meadows, while pelagic **long-liners and purseiners** coming to fish in these waters also from France and Italy, are depleting the stock of tuna, swordfish and anchovies.

#### CONSERVATION STATUS

According to WWF new study, the percentage of coastline directly facing biologically relevant areas is 56%, while 6.7% is the overall percentage of the heavily degraded coast in this area. Almost all of this degraded coast (6.3%) is facing important areas for biodiversity.

**Only 4 marine protected areas** exist: Cabrera, a small archipelago with several islands and islets at the south of Mallorca; S'Arenal Regana, a 4 Km long submarine protected seascape along the coast of Mallorca; Reserva Marina del Norte de Menorca; Reserva Marina de los Freus de Ibiza y Formentera.

*Given the high level of direct threats like **pollution, tourism and fisheries**, the present level of marine protection in this area is definitely not sufficient to ensure the long term viability of this ecosystem.*

#### WWF OBJECTIVES

Spanish authorities have proposed the inclusion of the terrestrial part of the Tramontana coast in the EU Natura 2000 network. **WWF urges for extending seaward the integral protection of the Tramontana coast**, so to include the coast strip of Baias De Alcudia Pollensa.



## The Mediterranean : 13 key areas to protect

### **Liguro-Provençal coast** France, Italy, Monaco

#### **MAIN FEATURES**

**Riches:** From about Marseille to Genova, this coast represents the northern border of the recently established **Cetacean Sanctuary**. It is an exceptionally beautiful coastal landscape area and just for this reason it has been almost completely built up with holiday houses and tourism infrastructures for decades. Regarding the French coast, as a result of coastal development, about ten percent of the sub tidal area - the most productive underwater zone from 0 to 30 m depth - has been lost for ever. This site is unique: thanks to the particular shape of the sea bottom, the dominant winds and the high input of nutrients from land, significant up-welling exists. In summertime, both input of nutrients, up-wellings and temperature are at their maximum and thus planctonic organism also increases. That's why **whales and dolphins** and other fish kind are here in such high numbers in summer. This is also an exceptional area for **tuna and swordfish** and pelagic fisheries in general.

**Threats:** This marine area is really as crucial as fragile for life in the sea. The pollution coming from **industries, cities and agriculture** is very important. On another hand, bottom shrimp trawlers, purseiners, longliners and sometime illegal driftnetters are **really fishing out rapidly the resources** of the area. **Intense maritime traffic** of pleasure boats, ferries and chemical tankers is also a huge risk for biodiversity here.

#### **CONSERVATION STATUS**

According to WWF new study, the percentage of coastline directly facing biologically relevant areas is 55.2%, while 17.2% is the overall percentage of the heavily degraded coast in this area. The percentage of important zones for biodiversity, on the total considered surface, is 10.5 %, while 24% of those is directly facing degraded coast.

**Only five and rather small marine protected areas are found in this area.** Five in France, Port Cros, La Côte Bleue, Roquebrune, Golfe Juan and Beaulieu; One in Monaco, Larvotto and two in Italy, Portofino and Cinque Terre.

*The total protected sea surface is absolutely insufficient to ensure the long term conservation of this area.*

#### **WWF OBJECTIVES**

WWF has been the main organisation pushing for the creation of the International Cetacean Sanctuary in this area. This has been issued with an international treaty between France, Monaco and Italy in November 1999.

**WWF urges for the creation and implementation of a management plan**, the organisation calls also for the inclusion of the Sanctuary in the list of **specialty protected areas of Mediterranean importance** (SPAMI -Barcelona Convention)



## The Mediterranean : 13 key areas to protect

### The Aegean Sea & Anatolya coast Greece, Turkey

#### MAIN FEATURES

**Riches:** Between Greece and Turkey this area includes the most variable and spectacular insular, coastal and marine landscapes, as well as flora and fauna. It is the area in the Mediterranean which hosts **the largest number of monk seals** (*Monachus monachus* - 120-250, it still has numerous beaches where **sea turtles are nesting** and it has recently been recognised as important for the presence of **small cetacean** populations. Important sea bird species are also present, like Audouin's gull (*Larus audouinii*). Some of the most pristine, natural and rich under-water sea bottom can be found in the Aegean Sea, making it one of the favourite destinations for scuba divers. The Aegean Sea is also hosting one of **the healthiest and most continuous Posidonia oceanica meadows in the whole Basin.**

**Threats:** Heavy pollution impact from land based sources, which includes **fertilisers and pesticides** from agriculture, **untreated waste water** from cities, **industrial waste** from chemical plants are some of the localised threats, while intense **oil tanker traffic** and **high fishing effort** are widespread in this area. Heavy impact from **tourist infrastructures** immediately facing the sea is also a serious and rapidly expanding threat here, particularly along the Turkish coast.

#### CONSERVATION STATUS

According to WWF new study, the percentage of coastline directly facing biologically relevant areas is 92%, while 3.9% is the overall percentage of the heavily degraded coast in this area. Only 2.4% of those relevant areas is facing degraded coast.

The Northern Sporades marine park in Greece and, on the Turkish coast, the Foça specially protected area are the most important areas dedicated to the protection of the monk seal. The Dilek Peninsula and the Olympos-Beydaglari national parks, in Turkey - unfortunately focusing on the terrestrial biomes - also hosts some monk seal populations; while Fethiye Gocek, Dalyan, Belek and Patara have been created mainly for the conservation of sea turtle (*Caretta caretta*).

***Because of the presence of the last and most consistent population of monk seals in the Mediterranean, it has to be clearly stated that the total protected coastal and marine area is absolutely insufficient to ensure the long term viability of these species and of the high marine biodiversity hosted by this corner of the Basin.***

#### WWF OBJECTIVES

WWF's main objective here is **to ensure the survival of the monk seal populations, the protection of the nesting beaches, wintering and feeding areas for the sea turtles and the instalment of a sustainable fisheries management.** By using these flag species, it will also be possible to save all the fragile and crucial marine ecosystems linked to those species. Furthermore, the collaboration between DHKD and SAD AFAG, both linked with WWF, is consenting to strengthen the activities on the field with joint advocacy and policy actions at national level.

WWF is active in the Aegean Sea and Anatolya coast with two ongoing field projects and several new initiatives.

*Ongoing:*

#### **Foça (Turkey)**

This has been the first Specially Protected Area dedicated to the protection of the monk seal in Turkey. Twelve individuals have been identified so far but the population could be more probably formed by 20 units.



They are using this area because of the presence of sheltered caves, where they sometimes also give birth to new offspring. WWF has been supporting here the national NGO Underwater Research Society (SAD-AFAG) since 1993 to create **the most favourable conditions for the species**. This is done through collaboration with local small-scale fishermen, central and local authorities, schools and tourist groups and structures.

### **Cirali (Antalya, Turkey)**

Thanks to an EU contribution, this hidden coastal and marine paradise, **where tourism has been developed at a sustainable scale**, is going to remain a natural area and is going to have sustainable development plans agreed by all local stakeholders. DHKD, the Turkish Society for the Protection of Nature, a WWF associate member, is heading this project.

*Starting projects:*

### **Karaburun (Izmir, Turkey)**

Between Izmir and Cesme, and facing the Foça site, this peninsula hosts a high biodiversity in terms of marine bird species and of *posidonia* meadows, but the most important feature is that it still has suitable habitat for the monk seals. This area is threatened by secondary holiday houses and illegal fishing. SAD-AFAG and WWF have the objective **to declare this area protected as important monk seal habitat** and join it with the Foça Specially Protected Area and its future extensions.

### **Tekirova, Cirali, Gelidonya, Kumluca - (Antalya, Turkey)**

This is a long and scenic coastal and marine area west of Antalya, backed by the mainly terrestrial Olympos NP, encompassing the village of Cirali. Breath-taking rocky cliffs, long beaches and small islands are providing flora and fauna with an ideal habitat. Monk seals and sea turtles are the most important species here. The highest threat is represented by tourism, yachting, greenhouses run off of fertilisers and pesticides and illegal sand extraction. Main objective pursued by DHKD is **to establish marine protected areas in the core biodiversity zones and to manage tourism in a sustainable way**.

### **Kastellorizo (South East Aegean, Greece)**

This far south east Aegean Sea Greek island, made famous by the Oscar winning movie “Mediterraneo”, also hosts very important spawning and nursery grounds for marine life and particularly commercially important fish species. *Posidonia* beds, coral reefs, vegetated sea cliffs are the ideal habitat for the monk seal, the sea turtle *Caretta caretta*. Still threats exist for these flag species, like some accidental entanglement in nets and overfishing. WWF Greece has started **a good cooperation here with local fishermen with the goal to establish a large fish refuge area** in order to overcome the problems linked to overfishing and the protection of flag species.



## The Mediterranean : 13 key areas to protect

### Cilician coast (Turkey) & Cyprus Island Coast

#### MAIN FEATURES

**Riches:** The area composed by the south east coast of Turkey and a large part of the coasts of Cyprus island present a huge and deep contrast. Hundreds of kilometres of coast are free of human impact, while some areas show the worst example of coastal pollution and degradation, like in the case of the Iskenderun Bay and Mersin. This is a very particular place, where **sea temperature**, staying at high levels all year round and the strong input of nutrients from land, **increase the productivity of the sea**. It is the **only location in the Mediterranean still used by the rare green turtle (*Chelonia mydas*) to nest, feed and winter**. Along the coasts of the Cilician basin, at least some **20-30 monk seals** are still present, giving birth to a few new pups every season. Important fishing grounds for most commercial fish species are found in this area, considered crucial for the local fishing communities.

**Threats:** The area has unfortunately to face one of the **highest impacting pollution in the Mediterranean**. The industrial areas of Mersin and Iskenderun Bay, the very **intense agriculture** and the heavy production of untreated **solid and liquid wastes** from cities are seriously putting at risk this ecosystem. In addition to this, there is a very intense and sometime **illegal fishing effort along the coast** of the whole area which is causing serious damage not only to fish stock, but also to species like sea turtles.

#### CONSERVATION STATUS

According to WWF study, the percentage of coastline directly facing biologically relevant areas is 64.4%, while 21.8% is the overall percentage of the heavily degraded coast in this area. 10.6% of the degraded coast is facing important areas for biodiversity.

Thank to the action of SAD-AFAG, a national NGO, 5 coastal protected areas between Gazipasa and Silifke (Cilician coast) for monk seals have been recently created under a decree of the Ministry of Culture and donated as a “Gift to the Earth” in the framework of the WWF “Living Planet Campaign”. A specially protected area exists at the Goksu Delta, near the town of Silifke. Along the Cukurova Delta coast, a Nature Reserve in Yumurtalik and a Permanent Wildlife Reserve in Akyatan exist. In addition, 3 of the 17 important sea turtle nesting sites are also in this region, which are Kazanlı, Akyatan and Samandag.

*The present level of conservation and of protection action is definitely insufficient to guarantee the long term viability of the local coastal and marine ecosystems.*

#### WWF OBJECTIVES

##### Cilician coast

**Main objective here is the creation, in collaboration with SAD AFAG, of a large fish refuge area along the coast of the Cilician basin**, extending and improving the existing protection status. This would give time and space for main fish stock to reproduce and to re-populate the area, with major benefits for the fishing communities and also the monk seals and the sea turtles.

##### Yumurtalik/Akyatan

**The goal is the protection of the crucial and last nesting, feeding and wintering sites of the green turtle and loggerhead turtle**. DHKD and WWF have initiated in Yumurtalik (bay of Iskenderun) the first systematic study for assessing sea turtle by-catch in this area. A project will be soon started here to reduce the impact of industrial plants and to create a proper marine protected area, complementary to the existing coastal protected area of Akyatan.





## The Mediterranean : 13 key areas to protect

### Eastern Ionian coast and islands

Albania, Greece

#### MAIN FEATURES

**Riches:** On the Eastern side of the Ionian Sea, from the Karaburun Peninsula in Albania to the Island of Zakynthos in Greece, a number of vital coastal and marine landscapes and habitats for fauna and flora can be found. Flag species are present, like **the monk seal** (*Monachus monachus*), with a colony of about 20-40 individuals and **the loggerhead sea turtle** (*Caretta caretta*), nesting, migrating and wintering. **Rich fishing grounds** can be found of commercial species, including blue-fin tuna (*Thunnus thynnus*), anchovies (*Engraulis encrasicolus*) and swordfish (*Xiphias gladius*). The most important single beach (Sekania) in the Mediterranean in terms of number of **loggerhead sea turtle nests** (between 700-1000 per year) is in the Island of Zakynthos, in the Bay of Laganas. Important presence of small cetaceans populations like common dolphins (*Delphinus delphis*) and bottlenose dolphin (*Tursiops truncatus*) has also to be noted.

**Threats:** The most serious threat here is represented by **heavy and often unsustainable tourism development**. Tourism infrastructure are often destroying fragile and crucial ecosystems directly on the coast, like beaches, sand dunes and even cliff areas. Pollution from human settlements, like solid and liquid waste, is very high as well. **Intense overfishing** both at coastal and pelagic levels is present and even sport fishing is becoming a serious problem for the area.

#### CONSERVATION STATUS

According to WWF study, the percentage of coastline directly facing biologically relevant areas is 56.7%, while 3.9% is the overall percentage of the heavily degraded coast in this area. 7.5% of the degraded coast is facing those important zones for biodiversity.

**Only one and very recently created marine protected area exists here.** It is the Park in the Greek Island of Zakynthos, specially dedicated to the protection of sea turtles and monk seals. No coastal or marine protected areas exist in Albania yet.

*The long term viability of these ecosystems is seriously at risk if a more adequate and extended protection system is not put together rapidly.*

#### WWF OBJECTIVES

WWF has been active in the Island of Zakynthos for over ten years. As an extreme and urgent conservation action, with the support of the EU, the area surrounding Sekania beach has been bought to guarantee the long term integrity of this crucial nesting site for the sea turtles. **WWF's aim is now to establish a management body and an effective management of the area**, this could happen in a near future.

**One other objective for WWF is to work on the inclusion in the Park of an ecologically important marine and coastal area to the north of the island which is still without any protection scheme.**



## The Mediterranean : 13 key areas to protect

### Dalmatian coast Croatia

#### MAIN FEATURES

**Riches:** Only the eastern side of the Adriatic Sea has been extensively gifted with valuable levels of scenic coastal and marine landscapes and with high levels of biodiversity. This includes a great variety of fish and invertebrates, among which **the threatened brown and white sea dates** (*Lithophaga lithophaga*, *Pholas dactylus*). Monk seals (*Monachus monachus*) have been spotted in the pelagic islands of this coast. Interesting populations of bottlenose dolphins (*Tursiops truncatus*) have been identified and studied in the area and numerous species of endemic breeding sea birds can be spotted, like the Mediterranean shearwater (*Calonectris diomedea*), the yellow legged-gull (*Larus cachinnans*) and the pallid swift (*Apus pallidus*). What makes these coast and islands really unique is also the **presence of extremely varied rich sea bottom landscapes**, which are attracting scuba divers from all round the world.

**Threats:** Main threats are represented by tourism infrastructures and pressure on the coast, overfishing and untreated solid and liquid waste from human settlements. On top of everything, because of the serious difficulties faced by this country in the last years, there is **a total lack of monitoring and controlling by local and central authorities as far as illegal resource use and environmental impacts are concerned**. One of the most abused and illegal practices is the extraction of sea dates from the reefs which, besides causing the depletion of the populations of this very slow growing mollusc, is provoking massive destruction of the substrate.

#### CONSERVATION STATUS

According to WWF study, the percentage of coastline directly facing biologically relevant areas is 63.2%, while 13.8% is the overall percentage of the heavily degraded coast in this area. 11.6% of the degraded coast is facing those important zones for biodiversity.

**Only three protected areas exist here:** the Kornati Islands National Park, the special marine reserve of Malostonsky Zaljev and the National Park of Mljet.

*The protection level allowing a long term viability to these extremely fragile and threatened ecosystem is definitively insufficient.*

#### WWF OBJECTIVES

In collaboration with local environmental NGOs and with the national and local authorities, **WWF has the objective to create an integrated protected area including and having as fulcrum the pelagic islands of Vis, Palagruza, Bisevo, Svetac, Kamic, Brusnik, Jabuka, Veli Barjak**. These islands are characterised by high levels of insular endemic species and sub-species, and by an incredibly rich marine biodiversity. At the same time, the objective is also to install an effective monitoring and patrolling scheme for the park and for the whole coast.



## The Mediterranean : 13 key areas to protect

### Algero-Tunisian coast Algeria, Tunisia

#### MAIN FEATURES

**Riches:** Between the north eastern coast of Algeria and the north western coast of Tunisia a very important marine area with superb natural features comes out from WWF study. It is mainly a rocky coast with spectacular cliffs and scenic sea bottom landscapes with extended posidonia meadows (*Posidonia oceanica*) and red coral. **Well conserved but highly endangered sand dunes** habitat is also present in this area. Monk seals (*Monachus monachus*) have been spotted here in several occasions up until recent years. **Loggerhead sea turtles (*Caretta caretta*) use this coast as a migratory route and feeding ground.** Other flag species of the area are bottlenose dolphins (*Tursiops truncatus*), Auduin's gulls (*Larus audouinii*) and red coral (*Corallium rubrum*). Important fishing ground and nursery areas for commercial species like lobster (*Palinurus spp.*) sea breams (*Sparus aurata*), snappers (*Dentex dentex*) and groupers (*Epinephelus marginatus*) are also present and numerous.

**Threats:** Main threats on this coast are represented by agriculture run off of fertilizers and pesticides, untreated sewage from large and small cities and **organo-chlorine compounds deriving from oil refineries off the Algerian coast.** Overfishing is also a major problem in this area. In some areas, even sport fishing has become a problem for several species like groupers and snappers. **On the Tunisian side, huge tourism development sites have started to destroy some of the most important sand dunes coastal habitat.**

#### CONSERVATION STATUS

According to WWF study, the percentage of coastline directly facing biologically relevant areas is 88%, while 28% is the overall percentage of the heavily degraded coast in this area. 32% of the degraded coast is facing those important zones for biodiversity.

**Only one small marine coastal park exist in this area.** It is the Tunisian small archipelago of La Galite, off the coast of Tabarka, near the border with Algeria.

*Given the level of threat and the abundance of marine biodiversity, the present level of protection is absolutely insufficient to ensure the long term viability of these ecosystems.*

#### WWF OBJECTIVES

Main WWF objective here is **to increase the level of marine and coastal protection starting from an identified core area between Cap Negro and Cap Serrat in Tunisia** (between Tabarka and Bizerta). Together with the APAL, the National agency for the protection of the coast, WWF is aiming to put in place all instruments to declare this area as protected, possibly joining it with the archipelago of La Galite, and to start a sustainable management of coastal and marine resources in cooperation with local communities and other stakeholders.



## The Mediterranean : 13 key areas to protect

### Gulf of Gabes Tunisia

#### MAIN FEATURES

**Riches:** The particularly shallow sea bottom of this Gulf has contributed to the development in this area of **the most extended and continuous posidonia meadow of the Mediterranean**. The importance of **this gulf is capital for life cycles of all commercial fish species** (nursery and feeding grounds) and for flag species like sea turtles (*Caretta caretta*), which are using this huge area as a wintering site after summer nesting activities, as well as small cetaceans and sea birds like shags (*Phalacrocorax aristotelis*). **This enormous marine diversity is providing for many coastal communities who make artisanal fisheries their only way of living.**

**Threats:** The main threat here, is represented by **heavily polluting industrial chemical plants along the coastline. Organo-chlorine compounds are the main dangerous substances.** Run off from agriculture are also important as well as untreated sewage from major coastal cities. Overfishing, illegal fishing and heavy pressure from tourism infrastructures on the coastline complete the picture.

#### CONSERVATION STATUS

According to WWF study, the gulf of Gabes has come out as a crucial marine ecosystem because of the presence of an enormous sea bed area covered by posidonia meadow. **There are no protected areas yet in this zone and the degraded coastline over the total considered is already 12%.**

*It is therefore quite urgent to ensure protection of the whole posidonia meadow beds and to reduce the pressure and impacts from industry and tourism in the area.*

#### WWF OBJECTIVES

**WWF is lobbying at a national and international level to ensure the protection** of the crucial and fragile sea bottom areas covered with posidonia meadows and **to progressively reduce the impact of pollution in the area.**



## The Mediterranean : 13 key areas to protect

### Gulf of Sirte Libya

#### MAIN FEATURES

**Riches:** This is a fairly natural area characterised by low and sandy coast with scattered dune complexes. On the sea side, the situation is quite similar to the gulf of Gabes, **with an extended shallow sea bottom area entirely covered by *Posidonia oceanica* meadows.** The beaches of the area have been recently identified among **the most important in the Mediterranean for the high number of loggerhead turtle (*Caretta caretta*) nests.** Like in the case of the gulf of Gabes, this area hosts **very important fishery grounds for the most important commercial species,** while flag species, beside sea turtles, are bottlenose dolphins (*Tursiops truncatus*), flamingos (*Phoenicopterus ruber*), and several species of terns (*Sterna spp.*).

**Threats:** **The level of threat along this coast is not as high as all the other areas.** There are of course impacts from industrial chemical plants like oil refineries and coastal cities, but the damage done is lower than elsewhere. Fisheries activities are quite intense along the coast but the artisanal level of these operations has left marine resources and coastal fish stock in good conditions. **But a real threat exists, even if only at a potential level : heavy tourism development.** If this was to be taking place at the same level, scale and modalities as in other North African countries (like Tunisia), the risk of loosing highly natural marine and coastal areas would raise dramatically.

#### CONSERVATION STATUS

According to WWF new study, the situation here is very similar to that one of the gulf of Gabes. There are very shallow waters, but there is a massive presence of *Posidonia* meadows which comes out as a very important biological area. Only 7% is the overall percentage of the heavily degraded coast in this area. **There are no marine and coastal protected areas here.**

*The urgency to start dealing with this aspects is given by the potential threat represented by potential massive tourism coastal developments.*

#### WWF OBJECTIVES

WWF and the UNEP-MAP RAC/SPA of Tunis have started a co-operation with the Libyan authorities for the past 3 years to carry out sea turtle nesting beaches surveys in this area. The importance of this habitat for this species has been demonstrated as crucial. WWF and RAC/SPA are now in the process of developing **a longer term intervention plan with the Libyan authorities aiming at exploring the possibilities to create marine reserves.**



## The Mediterranean : 13 key areas to protect

### Coast of Cirenaica Libya

#### MAIN FEATURES

**Riches:** This region stands out on its own, even though it is in the same country above mentioned (Lybia), because of the completely different coastal and sea bottom morphology. The coast is mainly rocky, with high cliffs and deeply indented, but sand dune systems are also present in some areas. **The sea bottom has a high and continuous presence of biologically relevant areas almost along the whole coastline.** Biological data are totally insufficient here, but it can be reported that flag ship species like sea turtles (*Caretta caretta*) are also widely using the few beaches here to nest and that the monk seal (*Monachus monachus*) has been spotted along this coast. **Numerous populations of bottlenose dolphin (*Tursiops truncatus*) and common dolphin (*Delphinus delphis*)** are frequently spotted along this coast. *Posidonia oceanica* meadows are also present, but in a much thinner strip than in the gulf of Sirte, because the sea bed rapidly deepens.

**Threats:** While human pressure and impact on the mainland seem to be heavy, at least around the main cities and settlements, on the sea side some pollution impacts are caused by untreated sewage and agriculture run off. There is also a growing pressure on fish stocks, even if at an artisanal level. Some oil refineries may also cause the release of nasty chemical substances in the area. **But the real potential threat, just like for the gulf of Sirte is the development of large scale mass tourism infrastructures along the coastline.**

#### CONSERVATION STATUS

According to WWF new study, the percentage of coastline directly facing biologically relevant areas is 89%, while 2.8% is the overall percentage of the heavily degraded coast in this area. 3.15% of the degraded coast is facing those important zones for biodiversity.

**There are no marine protected areas here, only the terrestrial Park of El Kouf, with 20 km of coastline.** *Even if the most important threat is only a potential one, it is urgent to establish legal protection and sustainable management of this crucial high biodiversity area to ensure the long term viability of the various ecosystems.*

#### WWF OBJECTIVES

WWF and the UNEP-MAP RAC/SPA of Tunis have started a co-operation with the Libyan authorities for the past 3 years to carry out sea turtle nesting beaches surveys in this area as well as in the Gulf of Sirte. The importance of this habitat for this species has been demonstrated as crucial. WWF and RAC/SPA are now in the process of developing **a longer term intervention plan with the Libyan authorities aiming at improving the management of protected areas and exploring the possibilities to create new marine reserves.**



## The Mediterranean : 13 key areas to protect

### Corso-Sardinian coast France, Italy

#### MAIN FEATURES

**Riches:** From the north west coast of Corsica, passing through the Bonifacio Strait and going down through the whole eastern Sardinian coast, **a very continuous and important sea bottom areas** is coming out from the analysis. The coast of this region is also very diverse and interesting on a biological stand point. Rocky cliffs, small bays and islets, beaches and sand dune systems are granting this coast spectacular landscapes. Flag ship species like dolphins (all Mediterranean species), whales (*Balaenoptera physalus*) and sperm whales (*Physeter macrocephalus*) can be spotted here, together with migrating (not nesting) sea turtles (*Caretta caretta*). The monk seal (*Monachus monachus*) has no more permanent colonies in this area but some single individual have been spotted. **Very important fishing grounds and nursery areas** are present. **All the most valued commercial coastal and pelagic species** can be found also close to the shore, given the depth of the sea bed. This is the case of blue-fin tuna (*Thunnus thynnus*), yellowtail (*Seriola dumerili*) and swordfish (*Xiphias gladius*). Also the most representative coastal fish, the grouper (*Epinephelus marginatus*) finds here the optimal habitat to grow.

**Threats:** There are no major industrial complexes in this area, but the impact from human settlements is still high. **Holiday houses, tourism infrastructures and uncontrolled or illegal buildings expanding from coastal cities are representing a major threat for these ecosystems.** Pollution is mainly coming from untreated sewage and from solid waste disposals. **Very heavy fishing pressure is present along the whole area.** Pelagic fisheries with longlines are also causing the by catch of hundreds of sea turtles every year.

#### CONSERVATION STATUS

According to WWF new study, the percentage of coastline directly facing biologically relevant areas is 89%, while 5.2% is the overall percentage of the heavily degraded coast in this area. 5.8% of the degraded coast is facing those important zones for biodiversity.

There are **several marine and coastal protected areas**: in the Corsican part, Lavezzi Islands, Scandola and Finocchiarola Island. On the Sardinian side there is La Maddalena, Asinara Island and Tavolara Island.

*Given the high fishing effort that is most of the time carried out illegally too close to the shore, and the high pressure put on by tourism almost everywhere, a much more extended protection scheme should be granted to this coast in order to ensure the long term viability of these precious ecosystems.*

#### WWF OBJECTIVES

WWF has been active through field and policy projects for many years on this. Today's main objective is **to ensure the inclusion of the coastal and marine area of the Orosei gulf in the Gennargentu National Park.** WWF is also asking for the **closure of Bonifacio strait to all oil and chemical tankers.** The reasons for this closure concern the extreme ecological sensitivity of the area and the fact that the given geographical features of the strait are such that it makes navigation dangerous. **The establishment of an International park in Bonifacio is also strongly supported by WWF.**



## The Mediterranean : 13 key areas to protect

### Southern Tyrrhenian Coast Italy

#### MAIN FEATURES

##### **Riches:**

Including the Tyrrhenian side of the Italian regions of Calabria and Sicily, this long stretch of coast hosts several important natural features, unfortunately very often affected by human impacts. Rocky cliffs, sandy and rocky beaches, islets can be found on the terrestrial side and extremely variable and rich in fauna and flora sea beds on the marine one. Small and large cetaceans like **bottlenose dolphins** (*Tursiops truncatus*) and **sperm whales** (*Physeter macrocephalus*) are often spotted here, together with migrating sea turtles (*Caretta caretta*). Other important marine features are the **presence of consistent meadows of *Posidonia oceanica*** and of nursery grounds of the main commercial fish species. **Tuna** (*Thunnus thynnus*) and **swordfish** (*Xiphias gladius*) are also usually **present in high numbers** in this area.

**Threats:** Like in many other coastal places in Italy, very few natural and pristine areas exist here. **Uncontrolled and illegal urbanisation is the first threat** to this area, both because of tourism and of housing. Pollution is mainly coming from agriculture and untreated sewage which is becoming serious. Industrial areas, oil refinery and chemical plants are also heavy contributors. Heavy fishery pressure is present along the whole considered area, both at coastal and pelagic levels. **Illegal coastal trawling is the main threat to posidonia meadows and fish nursery areas.**

#### CONSERVATION STATUS

According to WWF new study, the percentage of coastline directly facing biologically relevant areas is 91%, while 10.33% is the overall percentage of the heavily degraded coast in this area. 4.9% of the degraded coast is facing those important zones for biodiversity.

**There are several but small marine protected areas here**, Scogli di Isca, S.Maria di Castellabate (no fishing zone), Egadi Islands, Ustica, Punta Campanella.

*Given the high pressure on the coast by tourism and housing, and of fisheries in the coastal area, a much more extended protection scheme should be granted here in order to ensure the long term viability of these precious ecosystems.*

#### WWF OBJECTIVES

WWF has been running field and policy projects in this area for a number of years. Main present objectives are the full and effective **management of Punta Campanella and Egadi Marine Parks, protection of the marine side of the Cilento and Vallo di Diano National Park, and creation of a coastal and marine protected areas in front of the Zingaro coast (Sicily).**