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**Agenda item 6: Conservation of sites of particular ecological interest**  
**6.3. List of Specially Protected Areas of Mediterranean Importance (SPAMI List)**  
**6.3.2: Inclusion of areas in the SPAMI List**

**Draft Proposals of areas for inclusion in the List of Specially Protected Areas of Mediterranean Importance (SPAMI List)**

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## **Draft Proposals of areas for inclusion in the List of Specially Protected Areas of Mediterranean Importance (SPAMI List)**

1. During the biennial period 2018-2019 and prior to the Fourteenth meeting of SPA/BD Thematic Focal Points, France, Italy, Slovenia and Spain have submitted to the SPA/RAC Secretariat proposals for inclusion in the SPAMI List. These proposals are the “Cerbère-Banyuls Marine Nature Reserve” by France, “Egadi Islands Marine Protected Area” by Italy, “Landscape Park Strunjan” by Slovenia and the “Cetaceans migration corridor in the Mediterranean” by Spain.
2. The executive summaries of the four presentation reports of the areas proposed for inclusion in the SPAMI List are presented here after, whereas the full reports are annexed in their original version (French for the “Cerbère-Banyuls Marine Nature Reserve” (Annex I), and English for the “Egadi Islands Marine Protected Area” (Annex II), “Landscape Park Strunjan” (Annex III) and “Cetaceans migration corridor in the Mediterranean” (Annex IV)).
3. It should be noted that the “Cetaceans migration corridor in the Mediterranean” proposal was submitted to the Thirteenth Meeting of Focal Points for Specially Protected Areas (Alexandria, Egypt, 9-12 May 2017). “While most of the participants [to the 13th meeting of the SPA/BD Focal Points] recognised and confirmed the regional value of the area and the sound scientific basis provided in the presentation report, several delegates, referring to paragraph 2, section C (Legal status) of Annex I to the SPA/BD Protocol, noted that the area does not fulfil some of the required criteria and particularly a protected status recognised at national level. [...] The meeting encouraged Spain to submit it to the next MAP focal points meeting once it is confirmed as MPA at national level. It requested that the Secretariat prepare an analysis of the legal status of the candidate SPAMI in relation to paragraph 2, section C (Legal status) of Annex I to the SPA/BD Protocol and other eligibility elements in the report proposal.”<sup>1</sup>
4. Eventually, the 20<sup>th</sup> Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols, COP 20, (Tirana, Albania, 17-20 December 2017) has welcomed the proposal by Spain and recognized the regional value of the Cetaceans Migration Corridor and the sound scientific basis provided for the inclusion of this area in the SPAMI List, and encouraged Spain to finalize the procedures at the national level to award to the area the status of marine protected area in line with the SPA/BD Protocol in order to formalize at the twenty-first Ordinary Meeting of the Contracting Parties to the Barcelona Convention (COP 21) its final inclusion in the SPAMI List.
5. Following the issuance of the Royal Decree 699/2018 of 29 June 2018, declaring the ‘Cetaceans Migration Corridor in the Mediterranean’ as a Marine Protected Area by Spain, an updated version of the presentation report of “Cetaceans migration corridor in the Mediterranean” (appearing in Annex IV to the present document) was prepared by Spain and submitted here for review by the Fourteenth Meeting of SPA/BD Thematic Focal Points.

### **I. Executive summary of the “Cerbère-Banyuls Marine Nature Reserve” presentation report**

6. The genesis of the creation of the Cerbère-Banyuls Marine Nature Reserve goes back to 1969, when the mayor of Cerbère, worried about the degradation of this part of the Côte Vermeille by the influx of the tourist phenomenon and the increase of the fishing effort, began to study with the collaboration of the laboratory Arago de Banyuls-sur-Mer, the possibility of setting aside a part of the rocky coast.
7. In 1971, the Arago laboratory presented a "scientific report justifying the creation of an underwater biological reserve" which concluded on the need to protect certain particularly endangered species. The first French marine reserve was officially created on February 26, 1974 by an interministerial decree. Since 1977, its management is entrusted to the Department of Pyrénées-

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<sup>1</sup> [http://www.rac-spa.org/nfp13/documents/01\\_working\\_documents/wg\\_431\\_15\\_nfp\\_meeting\\_report\\_eng.pdf](http://www.rac-spa.org/nfp13/documents/01_working_documents/wg_431_15_nfp_meeting_report_eng.pdf)

Orientales. It is located in the western part of the Gulf of Lion, along the rocky coast of the Pyrénées-Orientales.

8. It is located 35 km south of Perpignan and 2 km north of the border with Spain. It stretches along the coast of the communes of Banyuls-sur-mer and Cerbère. The total area of the Cerbère-Banyuls Marine Nature Reserve is 650 hectares. It stretches 7 km of coast and extends 2 km towards the sea. It has two levels of protection: a protected area corresponding to the largest area of the space is nearly 600 hectares where certain human activities are regulated and a protected area of 65 hectares where all human activities are prohibited.

9. The marine reserve benefits from a 5-year management plan (its third). Five daily missions are carried out by the agents of the marine reserve:

10. **Site monitoring:** To ensure this mission, 2 boats and 1 4x4 vehicle are available to sworn officers. About 1200 hours of monitoring are conducted throughout the year by the agents of the reserve including 600 hours for the summer season. This presence, modeled according to the attendance of the area, is intended to inform, to raise awareness but also to identify offenses on the reserve.

11. **Observations and scientific monitoring:** 1200 animal species and 500 plant species were observed in the reserve. Of these species, 49 have protection status under a national or international regulatory text such as posidonia, red coral, brown grouper and noble pen shell. On average, 12 studies are carried out regularly each year in the marine reserve (monitoring of temperature and water quality, monitoring of site visits, monitoring of red coral, monitoring of fish stands or ecological monitoring of gorgonians and filamentous algae).

12. These studies are necessary to improve knowledge of the marine environment and take all measures to maintain in a perfect state of conservation this fragile environment. Counts are performed on target species such as grouper. More than 600 individuals were counted in the reserve during the last count in 2017. At its creation, only about ten individuals were present in this zone.

13. **Management of human activity:** The efforts made by the Department of Pyrénées-Orientales have made this site a place where different activities coexist in respect of the environment.

14. More than 30000 individual and supervised divers by diving structures go to the reserve to discover the beauty of its seabed. A partnership with diving structures has been set up leading to the signature of a marine conservation charter each year. In continuity, 29 ecological docking devices have been installed by the Department in the reserve since 2001. They allow divers and boaters to benefit from an anchorage to moor their boats safely and in respect of the environment.

15. This implementation is part of the seabed preservation policy and aims to eliminate the destructive impact of anchors on the seabed. The maintenance of fishing activity called "small trades" is also an objective set by the reserve. 15 "small trades" fishermen are allowed to practice their activity in the zone (outside the reinforced protection zone). Recreational fishermen are also present on the reserve. This activity can attract each year a maximum of 1000 fishermen with a fishing authorization presenting the specific regulation of the zone (outside zone of reinforced protection). Documents are even distributed to convey educational information on this activity.

16. **Educational activities:** More than 1100 students benefit every year from free educational activities of quality. For this, the reserve has an educational service to carry out activities related to the educational program of the different levels of education. Workshops focusing on the role of the reserve, knowledge of ecosystems, eco-citizen actions and pollution are discussed. Conferences for the general public are also available. In order to meet the awareness objectives set by the Reserve Management Plan, educational activities outside the school period are carried out during the summer season. They attract more than 2000 participants each year.

17. **The reception of the public:** Every year, 30000 visitors discover the underwater trail during the summer. This secure aquatic course offers an original and educational tour for all those passionate about the sea. In order to enrich the knowledge of the different environments that the reserve shelters, submerged panels are set up throughout the course. The visit can be fully commented through the use of a FM snorkel rental to obtain a quality comment by bone conduction via the teeth. In addition, at the reception area of the underwater trail, an information point is available to users. Information boards and exhibitions are presented throughout the summer. They attract no less than 6500 people in the months of July and August alone. The site is also accessible to persons with reduced mobility at the point of information until the launching of the underwater trail. Lastly, development works such as the installation of sorting bins, information boards and the cleanup of certain sites are carried out each year in order to welcome the public in the best conditions.

18. Today, after more than 44 years of existence, the Cerbère-Banyuls Marine Nature Reserve is well anchored in the area. Recognized by the International Union for Conservation of Nature since 2014 for the quality of its management conducted daily with local stakeholders, it has also been distinguished by the American organization GLORES for its results in terms of conservation.

## II. Executive summary of the “Egadi Islands Marine Protected Area” presentation report

19. The Egadi Islands Marine Protected Area was established in 1991 by the Italian Ministry of Environment, from 2001 is managed by the Municipality of Favignana. The extension of MPA is ≈54,000ha and includes the islands of Favignana, Levanzo and Marettimo, and the two islets of Maraone and Formica.

20. The coastal geomorphology is characterized by carbonatic rocky shore alternating by high cliffs, small sandy or pebbles beaches and many submerged or semi-submerged caves. The MPA has a high naturalistic value and hosts several important habitats both marine and terrestrial, such as the largest *Posidonia oceanica* meadow in the Mediterranean Sea or the vermetid's “*trottoirs*”, an association among the mollusc *Dendropoma* and some calcareous algae. The presence of several rare or endangered marine species as monk seal *Monachus monachus*, sea turtle *Caretta caretta*, colony of bottlenose dolphins *Tursiops truncatus* and striped dolphins *Stenella coeruleoalba*, ribbed limpet *Patella ferruginea*, noble pen shell *Pinna nobilis*, dusky grouper *Ephinephelus marginata*, bluefin tuna *Thunnus thynnus*, characterizes the rich biodiversity associated to the well preserved MPA's habitats. In addition, the coastal cliffs host a rare colony of storm petrels *Hydrobates pelagicus*.

21. According to ISTAT (Italian National Institute of Statistics) and Municipality of Favignana official data, at 01 January 2018 the population amount to 4,351 inhabitants, most of them living in the island of Favignana.

22. According to ISTAT (2011) 323 companies are active in the area, many of which related to tourism (72 accommodation/restoration companies and 45 rental/travel/services agencies). Professional fishing is the main commercial activity of the local economy: 165 boats are authorized to fish within the MPA, 37 of which are from Egadi Islands, and the others belong to fleet of Trapani (data at 2017).

23. Professional and non-professional fishing are regulated by laws, but due to the great extension of the MPA, surveillance and control is not simple. The other main commercial activities of the area (data at 2017) are limited and certificated by the MPA that release authorizations and touristic quality brands: recreational fishing (about 1600 authorizations), fishing cruise (7 authorizations), scuba diving centres (8 authorizations), marine cruise (63 authorizations), marine transport (10 authorizations), anchorage (about 2500 authorizations), boat renting and leasing services (about 250 authorizations).

24. Biodiversity is threatened by most of common human activities, with a highest peak during the touristic season (June/September). Cruise boats and anchoring are probably the main threats to marine habitats and biodiversity.

25. The presence of several endemic species of the Mediterranean makes the MPA attractive and of interest for research activities. The area hosts also prehistorical and historical archaeological settlements of significant interest.
26. The Egadi Islands are a Site of Community Interest (SCI), ITA010024, "*Fondali dell'arcipelago Isole Egadi*". From December 2016, Sicilian Government appointed the MPA as the SCI management Authority.
27. In 2010 the application of a new MPA management plan and of the executive regulation divided the stakeholder's opinions. Some professional fishermen were against the new rules. Several collaborative initiatives taken by the MPA mitigated the problems.
28. The coastal shore and its typical landscape, especially in the eastern coast of Favignana, is characterized by the presence of caves and tunnels, due also to ancient mining activities. Nowadays, the abandoned caves have now wonderful hypogeum gardens colonized by typical Mediterranean flora that make them particularly attractive to the visitors.
29. The coastline of the three islands are characterized by several submerged or semi-submerged caves, one of the best known is "Grotta del Genovese", in Levanzo, adorned by prehistoric paintings depicting hunting and fishing scenes.
30. In Favignana, the ancient tuna farm "Tonnara Florio", from long time fallen into disuse, was renewed and today host an important Historical Museum, nowadays the most important tourist attraction of the area.
31. The MPA zoning scheme is based on 4 different levels: A Zone (integral protection) 1.067ha; B Zone (general protection) 2.865ha; C Zone (partial protection) 21.962ha; D Zone (buffer protection zone) 28.098ha.
32. The Municipality of Egadi Islands (in Favignana) is in charge of the MPA management so the Mayor of Egadi Islands is the President of the MPA. The Mayor, together with the municipal bodies, it is responsible for the management of the MPA. The Director, appointed by Italian Ministry of the Environment, is in charge of the ordinary administrative and technical management of the MPA. Control activities at sea are in charge to the Italian Coast guard and to other institutional bodies.
33. The MPA staff consist of 15 annual employees, supported by seasonal staff that involve university and research institutes internships (such as CoNISMa, ISPRA, Enea, CNR, etc.), voluntary from environmental associations (such as WWF, Marevivo, etc.). This people, about 25/30 unity, help the annual staff to manage the mainly MPA's activities, such as the "Sea Turtle rescue centre" in Favignana, the "Monk seal observatory" in Marettimo and several others projects developed by the authority during the year. The MPA take care of training all the staff, in order to create a well prepared and expert staff. Some services such as management of moorings areas, info points and sea surveillance are given in management to external cooperatives that support the MPA's activities.
34. Despite the large area cover by the MPA, the public found received by the institutional bodies has been drastically reduced, to overcome to this lack on funding, the MPA supplements its budget by release of authorizations, entrance fees, penalties and voluntary donations. MPA is also partner of private companies that sponsor activities and projects, such as the "Sea Turtle rescue centre" and the anti-trawling bollards, financed by the "Rio Mare" company.
35. MPA is working on the implementation of online accessibility of its information by stakeholders, through the development of a GIS platform, which includes information on zoning, protected species, sensitive habitats, professional fishing areas and diving, bathing and mooring areas; the same platform is conceived to host data collected on the presence of alien species or jellyfishes and other useful management information.

### III. Executive summary of the “Landscape Park Strunjan” presentation report

36. Landscape Park Strunjan was established on 2nd February 1990 by the Ordinance on the declaration of Landscape Park Strunjan by the municipalities of Izola and Piran. In 1999, a new basic regulation for the protection of nature in Slovenia was adopted, namely the Nature Conservation Act, on the basis of which the Government of the Republic of Slovenia adopted the Decree on Landscape Park Strunjan.

37. The primary purpose of the establishment of the Landscape Park Strunjan was the protection of natural values and the preservation of biodiversity and landscape diversity. This is achieved by conserving natural values, biodiversity, populations of endangered and internationally protected wild plant and animal species, and habitat types. The park area preserves the landscape with its mosaic distribution of landscape structures, the ecological characteristics of the salt pans, the lagoon and the seashore, and the natural processes and connections between the splash zone, the intertidal zone and the infralittoral.

38. In 2008, the amended Decree stated that the Government of the Republic of Slovenia would establish a Public Institute which carries out public services in the field of protection of nature, manages databases related to the Park within the framework of public powers, and carries out direct nature protection supervision in the area of the Park.

39. The most characteristic part of Landscape Park Strunjan is the up to 80m-high Strunjan Cliff, which, together with the overgrown edge and the 200m-long stretch of sea below it, was designated the Strunjan Nature Reserve. This is the longest stretch of pristine coastline on the entire 130-km coast between Grado in Italy and Savudrija in Croatia, delimited by the Gulf of Trieste. Coastal cliffs with preserved natural shores and preserved vegetation in the hinterland are extremely rare throughout the Mediterranean. On the edge of the nature reserve there is one of the two largest known biogenic formations in Slovenia. The ridge, which comprises a 500m wide shoreline and seabed in front of the Cape Ronek, is formed of dead corallites of Mediterranean stony coral (*Cladocora caespitosa*).

40. The Strunjan-Stjuža Nature Reserve comprises the northernmost and the smallest salt pans in the Mediterranean, where sea salt has been manually obtained by a traditional method for over 700 years, and the area of Stjuža – the only Slovenian sea lagoon.

41. The coastal and marine part of the KPS is mainly characterized by rocky coast under Eocene flysch cliffs, an artificial marine lagoon and a small sized salt pans.

42. The great majority of the rocky coast is still pristine, with supralittoral belt well developed in exposed zones. The mediolittoral belt is mostly made of stones and rocks, whereas the deeper infralittoral is characterized by the presence of sandstone terraces, large rocks and boulders. They are mainly covered with algal vegetation (biocoenosis of photophilic algae), especially brown algae of the genus *Cystoseira*. Extensive seagrass meadows of *Cymodocea nodosa* are present on the sandy bottom. The infralittoral biocoenosis of photophilic algae is in deeper water with decreased light conditions replaced by the (pre)coralligenous biocoenosis, also known to host a great biodiversity.

43. The spatial heterogeneity is very high and is one of the main reasons explaining the outstanding biodiversity in this area (Annex 2, Photo 2).

44. A particularity of the marine part of the Park is the common bottlenose dolphin (*Tursiops truncatus*). The area of the Park is also important for the loggerhead sea turtle (*Caretta caretta*), because during the warm periods of the year young turtles feed in the broader area of the Park. Eighty-three species of fish have been found within the area of the Park, which corresponds to 45% of all species found in the Slovenian seas. The area of Strunjan Park, compared to other protected areas of the Slovenian coastal sea, is characterized by the great variety of benthic invertebrates.

45. The characteristic species of birds are the Mediterranean gull (*Larus melanocephalus*), shag (*Phalacrocorax aristotelis desmarestii*) and sandwich tern (*Thalasseus sandvicensis*). The salt pans and the lagoon see the regular appearance of the little and the great egrets (*Egretta garzetta* and *E. alba*), black-winged stilt (*Himantopus himantopus*), shelduck (*Tadorna tadorna*), common kingfisher (*Alcedo atthis*) and numerous species of sandpipers, grebes and seagulls. Stjuža is also the wintering ground of the Eurasian coot (*Fulica atra*).

46. Most of the terrestrial parts of area are covered by agricultural land, organized in terraces and stone walls, a feature typical for the Slovenian coastal area. On the contrary, the upper edge of the cliffs and the gorges, which are the result of erosion processes are overgrown by the typical deciduous sub-Mediterranean community of *Ostrya quercetum pubescentis*, in which *Spartium junceum* and *Arundo donax* are also abundant. At the warmest sites there are some representatives of typical Mediterranean undergrowth species, whereas in shady sites the structure of the forest changes and the stand consists of a slightly more mesophilic Austrian oak (*Quercus cerris*). Sub-Mediterranean woody species, which are mostly found on the cliffs, are hop-hornbeam (*Ostrya carpinifolia*), flowering ash (*Fraxinus ornus*) and pubescent oak (*Quercus pubescens*).

47. Floristically most interesting is the part of the cliffs named Cape Ronek, where in spite of its northern position and the prevalent flysch substratum, some typical Mediterranean species also occur, such as *Mirtus communis* and *Arbutus unedo*. In this area, three completely naturally preserved ecosystems meet within a short distance: the sea, the rock faces and the forest, which to date has been preserved in its original form and which in accordance with the Decree on Protective Forests and Forests with a Special Purpose, will be proclaimed a protected forest.

48. The salt basins and lagoon embankments are sites where numerous species of halophytes on the Red List of Endangered Species are found, such as: shrubby swampfire (*Sarcocornia fruticosa*), common glasswort (*Salicornia europea*), golden samphire (*Inula crithmoides*), swamp sea-lavender (*Limonium angustifolium*), bluish-leaved Wormwood (*Artemisia caerulescens*), and seashore aster (*Aster tripolium*).

49. Sea grass meadows of *Cymodocea nodosa* are the main habitat type also in the lagoon while on the embankments and in the salt fields halophytic plant assemblages are prevailing. The lagoon that was once a small bay is an example of euryhaline & eurytherm habitat, characterized by extreme ecological conditions as it is the case of the salt pans. Of importance in the Stjuža lagoon is the Mediterranean killifish (*Aphanius fasciatus*)

50. The most important traditional activities in the Park are agriculture, fishing and salt-making. Agriculture is almost entirely oriented towards the cultivation of agricultural plants on permanent and non-permanent plantations. Agriculture significantly impacts the landscape of the Strunjan peninsula. The most characteristic element of the agrarian landscape of the Strunjan peninsula is the cultivated terraces.

51. In the area of the Park, an important role is played also by coastal fishing. In the past decade, six fishermen had licences for commercial fishing in the renovated fishing port. Commercial fishing is conducted with small vessels and, most importantly, with bottom-set gillnets and trammel nets – rarely with fish traps. According to the weight, the largest proportion of catches consisted of the following species: common sole (*Solea solea*), common cuttlefish (*Sepia officinalis*), sea bream (*Sparus aurata*), European flounder (*Platichthys flesus*), common pandora (*Pegellus erythrinus*), European bass (*Dicentrarchus labrax*), black scorpionfish (*Scorpaena porcus*) and flathead grey mullet (*Mugil cephalus*). Mariculture activities are carried out by five shellfishermen, to a limited extent within the Strunjan fishing reserve, where part of the area of the nurseries, where edible mussels are grown, extends within the Park boundaries.

52. Since the 13<sup>th</sup> century at least, the Strunjan salt pans have been an area of traditional salt-making. A special feature of the salt pans is a clay base covered with a layer of petola, which primarily



prevents the mixing of salt with sea mud and allows the production of pure, white salt without admixture. Salt has been obtained manually, with tools and by a method of over 700.

53. Another important activity in the area of the Park is tourism. Each year, the Park is visited by approximately 300,000 visitors, concentrated in the summer season. In July and August, the area is visited by 37% of all annual tourists, and from May to September, as many as 66%. Day visitors who do not spend the night in the Park are not included in these statistics. The most frequent activities of the visitors are swimming, hiking, cycling and seafaring. The area of the Park offers many opportunities for the development of sustainable tourism, which derives from a rich and well-preserved natural and cultural heritage, and the historical legacy of the traditional activities of the inhabitants.

54. On the basis of the Nature Conservation Act and the Decree on Landscape Park Strunjan, the Government of the Republic of Slovenia adopted the Decree on the Management Plan of Landscape Park Strunjan for the period 2018-2027 on 28<sup>th</sup> February 2019.

55. The Management Plan of the Landscape Park Strunjan provides for development policies, ways of implementing the protection, use and management of the protected area, and detailed protection regimes. It is a key programme document for the long-term and effective preservation of the values of the protected area, which sets out the objectives and tasks for the management of the Landscape Park over a period of 10 years.

#### **IV. Executive summary of the “Cetaceans migration corridor in the Mediterranean” presentation report**

56. The Ibiza channel and the slope area off the coasts of Valencia and Catalonia constitute a migratory corridor used by many species of cetaceans in the western Mediterranean; it is especially used by the fin whale in its migration from breeding areas on the African coasts of Mid Mediterranean, to the feeding areas in the Gulf of Leon and the Ligurian Sea. It is estimated that around 3,500 fin whales migrate through this strip of water, which makes it a critical habitat for the conservation of the species.

57. Globally, it is a deep water area in whose central part is located an ocean front that has associated a very high primary production, which conditions an abundant availability of food for cetaceans. It is also an area of intense fishing activity. The striped dolphin census show that in this area are the highest densities along the Iberian coast, and that the region houses a population of about 6,000 individuals.

58. In addition, in this sector we can point out that, despite having registered a low density of the Risso's dolphin, the number of recorded sightings indicates that it is a regular species in this area.

59. Finally, it is important to highlight the diversity of habitats and seabed that can be found in the area. There are rich and varied areas, such as the bottoms around the Columbretes Islands, those of Valencia's Fosa in the Gulf of Valencia, or the canyons of the continental shelf of the Gulf of León, where most species have been found.

60. Therefore, the inclusion of this corridor in the established List of Specially Protected Areas of Mediterranean Importance (SPAMI's List) under Barcelona Convention will ensure the protection of the habitat and migration area of several species of cetaceans in the western Mediterranean.

**ANNEX I:**

**Presentation report of the “Cerbère-Banyuls Marine Nature Reserve”  
proposed by France for inclusion in the SPAMI List**

*The annexes to the Presentation report of Cerbère-Banyuls Marine Nature Reserve are  
available here:*

[http://rac-spa.org/nfp14/documents/spamis/annex\\_to\\_the\\_af\\_france\\_cerbère-banyuls.rar](http://rac-spa.org/nfp14/documents/spamis/annex_to_the_af_france_cerbère-banyuls.rar)



**FORMAT ANNOTE POUR LES RAPPORTS DE  
PRÉSENTATION DES AIRES PROPOSÉES  
POUR INSCRIPTION SUR LA LISTE DES ASPIM**



## **OBJECTIF**

L'objectif de ce format annoté est d'aider les Parties contractantes à produire des rapports ayant un contenu comparable et comportant l'information nécessaire pour une évaluation adéquate de la conformité du site proposé aux critères établis dans le Protocole et l'Annexe I (Critères communs pour le choix des aires marines et côtières protégées susceptibles d'être inscrites sur la liste des ASPIM).

## **CONTENU**

Le rapport de présentation doit contenir notamment les informations détaillées suivantes : (I) identification de l'aire protégée proposée, (II) description du site, (III) importance méditerranéenne, (IV) activités dans et aux environs de l'aire et leurs impacts, (V) statut juridique, (VI) dispositions prises pour sa gestion et (VII) ressources financières et humaines disponibles pour la gestion et la protection du site.

## **SOUSSION DES RAPPORTS**

Les rapports doivent être soumis au CAR/ASP deux mois avant la réunion des points focaux nationaux pour les ASP en anglais ou en français.

Les dossiers doivent être rédigés sur papier en format A4 (210 mm x 297 mm) avec les cartes et les plans annexés sur papier ne dépassant pas le format A3 (297 mm x 420 mm). Les Parties contractantes sont également encouragées à fournir leurs dossiers complets sur support électronique.

Les annexes demandées doivent être soumises sur papier et si possible sur support électronique.

Ces annexes sont les suivantes :

- Copies des textes juridiques.
- Copies des documents de planification et de gestion.
- Cartes : frontières administratives, zonage, statut du territoire, utilisation du sol et distribution des habitats et des espèces.
- Inventaires existants des espèces végétales et animales.
- Photographies, diapositives, films/vidéos, CD-ROM.
- Liste des publications et copies des principales publications qui se rapportent au site.

**N.B.:** Toutes les sections ci-après doivent figurer dans le rapport présenté, même les sections ou éléments de section qui ne sont pas pertinents pour l'aire proposée. Dans ce cas il faut y porter la mention «non pertinent pour l'aire proposée».

## 1. IDENTIFICATION DE L'AIRE

### 1.1. LE PAYS/LES PAYS (dans le cas d'aires transfrontalières)

France

### 1.2. PROVINCE OU REGION (ADMINISTRATIVES)

Région Occitanie  
Département des Pyrénées-Orientales

### 1.3. NOM DE L'AIRE

Réserve Naturelle Nationale Marine de Cerbère-Banyuls

### 1.4. SITUATION GEOGRAPHIQUE

Décrivez les frontières géographiques, ex : rivières, routes, frontières géographiques ou administratives (ne décrivez pas les coordonnées ici, prière d'établir une annexe séparée avec une carte et une description des coordonnées géographiques comme stipulé dans la déclaration juridique de l'aire).

La Réserve Naturelle Marine de Cerbère-Banyuls est située au sud de la France, dans la partie occidentale du Golfe du Lion, en bordure de la côte rocheuse du département des Pyrénées-Orientales. Elle est située à 35 km au sud de Perpignan et à 2 km au nord de la frontière avec l'Espagne. Elle s'étend le long du littoral des communes de Banyuls-sur-Mer et Cerbère sur 7 Km de linéaire côtier de l'île Grosse (Banyuls-sur-Mer) jusqu'au cap de Peyrefite (Cerbère). Entièrement située sur le Domaine public Maritime, son extension maximale vers le large est de 2,4 km. La Réserve présente 2 niveaux de protection : une zone protégée correspondant à la plus grande superficie de l'espace soit près de 600 hectares où la plupart des activités sont réglementées et une zone de protection renforcée de 65 hectares où toutes les activités humaines y sont interdites (Annexe 1 : cartes).

### 1.5. SURFACE DE L'AIRE (totale)

6,5 Km <sup>2</sup> (unité de mesure nationale)	650 hectares (Equivalent en hectare)
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### 1.6. LONGUEUR DE LA COTE (km)

7 Km de linéaire côtier de l'île Grosse (Banyuls-sur-Mer) jusqu'au cap de Peyrefite (Cerbère). Son extension maximale vers le large est de 2,4 km.

## 2. RESUME (3 pages maximum)

Fournir un résumé des informations contenues dans les sections 3 à 9 ci-après.

### **La Réserve Naturelle Marine de Cerbère-Banyuls**

La genèse de la création de la Réserve Naturelle Marine de Cerbère-Banyuls remonte à 1969, année où le maire de Cerbère, inquiet de la dégradation de cette partie de la Côte Vermeille par l'afflux du phénomène touristique et l'augmentation de l'effort de pêche, se mit à étudier avec la collaboration du laboratoire Arago de Banyuls-sur-Mer, la possibilité de mettre en réserve une partie de la côte rocheuse. En 1971, le laboratoire Arago présentait un "rapport scientifique justificatif en vue de la création d'une réserve biologique sous-marine" qui concluait sur la nécessité de protéger certaines espèces particulièrement menacées. La première réserve marine française fut donc officiellement créée le 26 février 1974 par un arrêté interministériel. Depuis 1977, sa gestion est confiée au Département des Pyrénées-Orientales. Située dans la partie occidentale du Golfe du Lion, en bordure de la côte rocheuse du département des Pyrénées-Orientales. Elle est située à 35 km au sud de Perpignan et à 2 km au Nord de la frontière avec l'Espagne. Elle s'étire le long du littoral des communes de Banyuls-sur-mer et Cerbère. La superficie totale de la Réserve Naturelle Marine de Cerbère-Banyuls est de 650 hectares. Elle s'étire sur 7 km de côte et s'étend sur 2 km vers le large. Elle présente 2 niveaux de protection : une zone protégée correspondant à la plus grande superficie de l'espace soit près de 600 hectares où certaines activités humaines sont réglementées et une zone de protection renforcée de 65 hectares où toutes les activités humaines y sont interdites. La réserve marine bénéficie d'un plan de gestion d'une durée de 5 ans (son troisième). Cinq missions au quotidien sont assurées par les agents de la réserve marine :

**- La surveillance du site** : Afin d'assurer cette mission, 2 embarcations et 1 véhicule 4x4 sont à disposition des agents assermentés. Environ 1200 heures de surveillance sont effectuées durant toute l'année par les agents de la réserve dont 600 heures pour la saison estivale. Cette présence, calquée en fonction de la fréquentation de la zone, a pour but d'informer, de sensibiliser mais également de relever les infractions sur la réserve.

**- Les observations et suivis scientifiques** : 1200 espèces animales et 500 espèces végétales ont été observées dans la réserve. Parmi ces espèces, 49 présentent un statut de protection au titre d'un texte réglementaire de portée nationale ou internationale comme la posidonie, le corail rouge, le mérrou brun et la grande nacre. En moyenne 12 études sont effectuées chaque année dans la réserve marine (suivi de la température et de la qualité de l'eau, suivi sur la fréquentation du site, suivi du corail rouge, suivi du peuplement de poisson ou encore une veille écologique sur les gorgones et les algues filamenteuses) sont régulièrement effectués. Ces études sont nécessaires afin d'améliorer les connaissances sur le milieu marin et ainsi prendre toutes les mesures pour maintenir dans un parfait état de conservation ce milieu si fragile. Des comptages sont réalisés sur des espèces cibles comme le mérrou. Plus de 600 individus ont été recensés dans la réserve lors du dernier comptage en 2017. A sa création, seulement une dizaine d'individus étaient présents dans cette zone.

**- La gestion de l'activité anthropique** : Les efforts consentis par le Département des Pyrénées-Orientales ont permis de faire de ce site, un espace où les différentes activités cohabitent dans le respect de l'environnement.

Plus de 30 000 plongeurs particuliers et encadrés par des structures de plongée se rendent sur la réserve pour découvrir la beauté de ses fonds marins. Un partenariat avec les structures de plongée a été mis en place débouchant chaque année sur la signature d'une charte de préservation du milieu marin. Dans la continuité, 29 dispositifs d'amarrage écologique ont été installés par le Département dans la réserve depuis 2001. Ils permettent aux plongeurs et aux plaisanciers de bénéficier d'un mouillage pour amarrer leurs bateaux en toute sécurité et dans le respect de l'environnement.



Cette mise en place s'inscrit dans la politique de préservation des fonds marins et a pour objectif d'éliminer l'impact destructeur des ancres sur le fond. Le maintien de l'activité de la pêche dite « petits métiers » est également un objectif fixé par la réserve. 15 pêcheurs "petits métiers" sont autorisés à pratiquer leur activité dans la zone (hors zone de protection renforcée). Les pêcheurs de loisir sont également présents sur la réserve. Cette activité peut attirer chaque année un maximum de 1000 pêcheurs possédant une autorisation de pêche présentant la réglementation spécifique de la zone (hors zone de protection renforcée). Des documents sont même distribués afin de faire passer des informations pédagogiques sur cette activité.

**- Les animations pédagogiques** : Plus de 1 100 élèves bénéficient chaque année d'animations pédagogiques gratuites de qualité. Pour cela, la réserve s'est dotée d'un service éducatif permettant d'effectuer des animations en lien avec le programme pédagogique des différents niveaux scolaires. Des ateliers axés sur le rôle de la réserve, la connaissance des écosystèmes, les gestes éco citoyens et la pollution sont abordés. Des conférences à destination du grand public sont également proposées. Afin de répondre aux objectifs de sensibilisation fixés par le plan de gestion de la Réserve, des actions pédagogiques en dehors de la période scolaire sont réalisées durant la saison estivale. Elles attirent chaque année plus de 2 000 participants.

**- L'accueil du public** : Chaque année, 30 000 visiteurs découvrent le sentier sous marin durant l'été. Ce parcours aquatique sécurisé offre une visite originale et pédagogique pour tous les passionnés de la mer. Afin d'enrichir les connaissances sur les différents milieux qu'abritent la réserve, des panneaux immergés sont mis en place tout au long du parcours. La visite peut être entièrement commentée grâce à l'utilisation d'un tuba FM en location permettant d'obtenir un commentaire de qualité par conduction osseuse via les dents. De plus, sur le lieu d'accueil du sentier sous-marin, un point information est mis à disposition des usagers. Des panneaux d'information et des expositions sont présentés tout au long de l'été. Ils attirent pas moins de 6500 personnes sur les seuls mois de juillet et d'août. Le site est également accessible aux personnes à mobilité réduite au niveau du point information jusqu'à la mise à l'eau du sentier sous-marin. Enfin, des travaux d'aménagement comme la mise en place de poubelles de tri sélectif, de panneaux d'information ou encore la dépollution de certains sites sont effectués chaque année afin d'accueillir le public dans les meilleures conditions.

Aujourd'hui, après plus de 44 ans d'existence, la Réserve naturelle marine de Cerbère-Banyuls est bien ancrée sur le territoire. Reconnue par l'Union Internationale pour la Conservation de la Nature depuis 2014 pour la qualité de sa gestion menée au quotidien avec les acteurs locaux, elle a également été distinguée par l'organisme américain GLORES pour ses résultats en terme de conservation.

### 3. DESCRIPTION DU SITE

#### 3.1. TYPOLOGIE DU SITE

3.1.1. Surface terrestre, à l'exception des zones humides (Ha) :

0
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3.1.2. Surface de la zone humide (Ha) :

0
---

3.1.3. Surface marine (km<sup>2</sup>) :

eaux maritimes intérieures

mer territoriale

haute mer

6.5 Km <sup>2</sup>

#### 3.2. PRINCIPALES CARACTERISTIQUES PHYSIQUES

##### 3.2.1. Géologie/Géomorphologie :

Décrire brièvement : (I) les aspects géologiques (lithologie et tectonique) ; (II) les processus d'accumulation et d'érosion observables ; (III) la géomorphologie côtière et (IV) les systèmes insulaires. (Indiquer les sources bibliographiques)

La côte des Albères est formée de roches primaires métamorphisées (cambro-siluriens) (Jauzein, 1953). Ces roches sont très résistantes à l'érosion marine. Au sein de la Réserve Naturelle Marine de Cerbère-Banyuls, elles forment trois grands caps (cap l'Abeille, cap Peyrefite et cap Rédéris). Les principales criques sont constituées de galets plus ou moins gros et de blocs issus de l'érosion des falaises. La zone de Banyuls-sur-Mer présente un plateau continental qui s'amenuise considérablement (3 à 9 milles au maximum), avec une pente plus importante (Gioan, 1963 ; Guille & Soyer, 1970). Dans la zone de la RNMCB, les substrats rocheux (roche massive ou roche-bloc) se rencontrent jusqu'à une trentaine de mètres de profondeur. À partir d'une quinzaine de mètres, on observe la présence de coralligène (bioconstructions d'algues calcaires). Le coralligène de la Côte des Albères se présente sous la forme de plateformes associées à des fonds rocheux isolés sur les fonds sédimentaires, jusqu'à - 45m où elles représentent un habitat remarquable (coralligène de plateau). La Côte des Albères est caractérisée par la présence de substrats meubles. La distribution des sédiments résulte de l'hydrodynamisme général. L'action de la houle intervient jusqu'à des profondeurs de 15 / 20 m. Elle effectue le tri et le classement des sables littoraux s'effectue en fonction de la taille et de la forme des particules. Les sables et éléments grossiers (40 µm-2 mm) se situent toujours près du littoral. Les sédiments fins (< 40 µm) occupent des surfaces importantes du plateau continental lorsque la roche et le coralligène ont disparu.

Les fonds bathymétriques de la Réserve se répartissent entre 0 et -60 m (profondeur moyenne = -35 m). La zone de protection renforcée se caractérise par une remontée rocheuse dans la zone centrale ainsi que de nombreux pitons rocheux. Cette configuration particulière confère à cette zone des conditions courantologiques particulières qui conditionnent le développement de la faune et de la flore.

### 3.2.2. Autres caractéristiques physiques intéressantes

Telles que hydrodynamisme, formations volcaniques, grottes, formations sous-marines, etc.

Dans la Réserve, l'hydrodynamisme est sous le contrôle des vents dominants. Les zones correspondant aux caps sont directement influencées par l'agitation liée à la Tramontane qui favorise la remontée des eaux froides (upwelling) concentrées en nutriments, attirant ainsi de nombreuses espèces de poissons et favorisant le développement d'un peuplement benthique riche en diversité. Les vents de secteur Est-Sud-Est, provoquent de fortes houles. Le vent marin entraîne une houle ample, profonde et génératrice de courants très turbides

### 3.2.3. Longueur des plages : (en km) y compris les îles

a) Longueur des plages sablonneuses :

b) Longueur des plages rocheuses et caillouteuses :

0.6 km

c) Longueur, hauteur et profondeur des dunes de sable actives :

## **3.3. INTRANTS D'EAU DOUCE :**

### 3.3.1. Précipitations annuelles moyennes (en mm)

Le régime pluviométrique de la côte des Albères est très irrégulier, mais le volume des précipitations reste toutefois élevé représentant 608,3 mm an<sup>-1</sup> en moyenne.

### 3.3.2. Principaux cours d'eau (permanents et saisonniers)

Il n'existe pas de fleuve côtier qui se jette dans la Réserve. Le cours d'eau le plus proche est la Baillaury qui se jette dans la baie de Banyuls et dont le régime des eaux est lié aux fortes précipitations locales. Le bassin versant de cette rivière est de 32 km<sup>2</sup>. En outre, plusieurs ruisseaux périodiques (recs) débouchent au niveau de la Réserve, représentant 17,8 km de cours d'eau.

### 3.3.3. Zones d'estuaires (Existence et brève description)

Non pertinent pour l'aire proposée

### 3.3.4. Sources d'eau douce (Existence et brève description ; y compris les résurgences sous-marines)

Non pertinent pour l'aire proposée

### **3.4. CARACTÉRISTIQUES BIOLOGIQUES (B2, Annexe I)**

#### **3.4.1. Habitats :**

Décrire les habitats présents dans l'aire sur la base des classifications d'Habitats de références adoptées dans le cadre du PAM (couverture, abondance relative en ha).

Dans la Réserve, les substrats durs (récifs) représentent 135 hectares soit près de 22 % de la surface. Dans la partie médiolittorale, on peut noter la présence de trottoir à *Lithophyllum byssoides* présent sur plus de 1300 mètres de linéaire côtier. Dans l'étage infralittoral à algues photophiles, on peut noter la présence de blocs et de roches massives qui représentent une surface de 75 hectares. On peut également y relever la présence d'herbiers de posidonies (*Posidonia oceanica*) sur environ 23 hectares (4% de la surface). Cet étage s'étend de la surface jusqu'à la limite des phanérogames marines. Dans ce secteur de la Méditerranée, la turbidité de l'eau est un facteur limitant la distribution de cet étage en profondeur soit environ -20 mètres. Dans le circolittoral, la présence de coralligène représente une surface de 56 hectares. Quelques grottes sous-marines, de petites dimensions, ont permis l'installation de la biocénose des grottes semi-obscurées. Les fonds meubles constituent l'unité écologique prédominante avec près de 75 % des biocénoses de la Réserve soit 459 hectares, défini par les criques à galets, les sables grossiers, les sables fins et pour finir les sables envasés (annexe 2 : description détaillée des habitats).

#### **3.4.2. Liste des espèces importantes sur le plan régional (faune et flore) (B-2a de l'annexe I)**

(Voir annexe 2 : statut réglementaire des espèces protégées)

Lister ici UNIQUEMENT les espèces protégées par les accords internationaux, en particulier les espèces marines comprises dans l'annexe II du Protocole qui sont présentes dans l'aire. Toute autre espèce peut être mentionnée si elle est clairement considérée comme ayant une importance régionale étant donné sa grande représentation dans l'aire. Établir la liste des espèces sous les rubriques : plantes marines, invertébrés marins, poissons, amphibiens et reptiles, oiseaux et mammifères. Pour chaque espèce, citez :

- a) Sa relative abondance comme Commune (C), Non-Commune (NC) ou Occasionnelle (O)
- b) Son statut global comme Rare (r), Endémique (e) et/ou Menacé (m)
- c) Son statut comme une importante population Résidente (R), ou importante pour sa reproduction (B), son alimentation (A), son hibernation (H) ou son passage migratoire (Mi)

ESPECES	ABONDANCE rel. (C) (NC) (O)	STATUT GLOBAL (r) (e) (m)	STATUT LOCAL (R) (B) (A) (H) (Mi)
<b><u>Algues:</u></b> - Cystoseires ( <i>Cystoseira mediterranea</i> ) - Trottoir à Lithophyllum ( <i>L. byssoides</i> )	(NC) (C)	(m)	(R)
<b><u>Phanérogames :</u></b> - Herbiers de posidonies ( <i>Posidonia oceanica</i> )	(C)	(e) (m)	(R)
<b><u>Spongiaires :</u></b> - Axinelle commune ( <i>Axinella polypoïdes</i> ) - Éponge commune ( <i>Spongia officinalis</i> )	(NC) (C)	(m) (m)	(R) (R)
<b><u>Cnidaires :</u></b> - Corail rouge ( <i>Corallium rubrum</i> )	(C)	(m)	(R)

ESPECES	ABONDANCE rel. (C) (NC) (O)	STATUT GLOBAL (r) (e) (m)	STATUT LOCAL (R) (B) (A) (H) (Mi)
<b>Mollusques :</b> - Grande patelle ( <i>Patella ferrugina</i> ) - Grande nacre ( <i>Pinna nobilis</i> ) - Datte de mer ( <i>Lithophaga lithophaga</i> )	(NC) (C) (O)	(m) (m) (m)	(R)
<b>Arthropodes :</b> - Grande cigale ( <i>Scyllarides latus</i> ) - Langouste ( <i>Palinurus elephas</i> )	(O) (C)	(r) (m)	(R)
<b>Échinodermes :</b> - Oursin comestible ( <i>Paracentrotus lividus</i> ) - Oursin diadème ( <i>Centrostephanus longispinus</i> )	(C) (O)	(m) (r)	(R) (B) (A) (H) (R)
<b>Poissons :</b> - Alose feinte ( <i>Alosa fallax</i> ) - Mérrou brun ( <i>Epinephelus marginatus</i> ) - Corb ( <i>Sciaena umbra</i> ) - Labre vert ( <i>Labrus viridis</i> ) - Hippocampes ( <i>Hippocampus hippocampus</i> , <i>H. ramulosus</i> )	(O) (C) (C) (C) (O)	(r) (m) (m) (m) (r)	(R) (B) (R) (A) (H) (B) (R) (A) (H) (B) (R) (A) (H) (B)
<b>Reptiles :</b> - Tortue caouanne ( <i>Caretta caretta</i> ) - Tortue luth ( <i>Dermochelys coriacea</i> )	(O) (O)	(r) (m)	(Mi) (Mi)
<b>Mammifères marins :</b> - Grand dauphin ( <i>Tursiops truncatus</i> ) - Dauphin commun ( <i>Delphis delphis</i> ) - Dauphin bleu et blanc ( <i>Stenella coeruleoalba</i> ) - Rorqual commun ( <i>Balaenotera physalis</i> )	(O)	(m) (m) (m) (r)	(Mi)

### 3.4.3. Flore

Décrire en quelques phrases les principales populations végétales importantes présentes dans l'aire.

La Réserve Naturelle Marine de Cerbère-Banyuls présente des conditions particulières et inhabituelles en Méditerranée : vents et courants forts, turbidité élevée (Jacques, 1967). Ces conditions influencent la présence des peuplements. L'inventaire floristique de la réserve recense 497 espèces végétales. Les algues sont les plus abondantes avec 495 espèces. Le groupe des phanérogames représente 2 espèces. Parmi elles, les herbiers de posidonies constituent un rôle majeur pour la conservation des peuplements de poissons et plus particulièrement pour les labridés. Il représente une zone de frayère qui abrite de nombreux juvéniles. Dans les herbiers de la Réserve, 62 espèces ont été inventoriées en 2001. L'herbier de posidonies ne sert directement de nourriture que pour très peu d'espèces : l'oursin comestible (*Paracentrotus lividus*), l'oursin violet (*Sphaerechinus granularis*), la saupe (*Salpa salpa*), l'araignée de mer (*Pisa nodipes*). En outre, l'habitat posidonies est associé à des espèces patrimoniales présentes dans la Réserve : l'hippocampe (*Hippocampus hippocampus*) et la grande nacre (*Pinna nobilis*) qui est bien implantée au sein de la Réserve où elle est régulièrement signalée. Ces dernières années, de nombreux individus de petites tailles issues d'un recrutement récent ont été observés en baie de Peyrefite. Une veille régulière sur cette espèce est mise en place par la Réserve depuis 2016 suite à l'apparition d'un parasite venant des Baléares et frappant une grande partie du bassin méditerranéen (voir annexe 2).

### 3.4.4. Faune :

Décrire en quelques phrases les principales populations animales importantes présentes dans l'aire.

Dans la Réserve Naturelle Marine de Cerbère-Banyuls, on comptabilise 1239 espèces animales. Les groupes les mieux représentés sont les arthropodes (177 espèces.), les annélides (314 espèces.), les mollusques (162 espèces.), les spongiaires (147 espèces.), et les poissons (126 espèces.).

Cette richesse spécifique importante s'explique en partie grâce à la présence de plusieurs unités écologiques à forte biodiversité : le trottoir à Lithophyllum, l'herbier de posidonies, les roches/blocs, les roches infralittorales à algues photophiles, le coralligène et les substrats meubles. D'une manière générale, l'unité écologique « récifs » qui regroupent l'ensemble des fonds dits rocheux, est le support d'une vie animale et végétale bien développée. La roche médiolittorale, qui contient le trottoir à Lithophyllum se caractérise par une faune importante et plus particulièrement en invertébrés (annélides, bryozoaires...). La roche infralittorale présente un peuplement de poissons particulièrement riche en espèces (nombreux sparidés carnivores) et également prioritaires dans la gestion de la réserve (corbs, mérours, denti, sars...). On y retrouve également de larges faciès à gorgones blanches (*Eunicella singularis*). Au niveau de la zone de protection renforcée, grâce à des conditions hydrodynamiques particulières et la présence de hauts fonds, on peut observer de larges tombants de gorgones rouges (*Paramuricea clavata*).

Le coralligène abrite une grande variété d'espèces sessiles, parmi lesquelles des cnidaires (*Alcyonium acaule*, *Eunicella singularis*, *Paramuricea clavata*) et plus particulièrement le corail rouge de la Côte des Albères - espèce sensible (*Corallium rubrum*), des bryozoaires (*Myriapora truncata*, *Pentapora fascialis*, etc.), des éponges (*Axinella polypoides*, *Cliona viridis*, *Spongia officinalis*), des échinodermes (*Centrostephanus longispinus* - espèce protégée, *Sphaerechinus granularis*) des mollusques (*Lithophaga lithophaga*, - espèce protégée), des crustacés (*Homarus gammarus*) et plus particulièrement la langouste (*Palinurus elephas* - espèce sensible), des tuniciers (*Microcosmus sabatieri*), des sipunculides (*Aspidosiphon* spp.), etc. 4 espèces sont dominantes sur le coralligène : le faux corail (*Myriapora truncata*), la gorgone blanche (*Eunicella singularis*), la clione verte (*Cliona viridis*) et l'éponge encroûtante orange (*Crambe crambe*).

Ces fonds coralligènes représentent un habitat privilégié pour des espèces à fort intérêt commercial. C'est le cas de crustacés décapodes (*Homarus gammarus*, *Palinurus elephas*) et surtout le corail rouge (*Corallium rubrum*). Ce dernier a une très forte valeur commerciale notamment en bijouterie. De plus, ces fonds abritent les mérours (*Epinephelus marginatus*) et les corbs (*Sciaena umbra*). Ils présentent également une très forte densité de gorgones blanches (*Eunicella singularis*).

Les herbiers de posidonies représentent également un habitat essentiel pour de nombreuses espèces de poissons notamment pour les labridés. On y retrouve également plusieurs espèces patrimoniales de la réserve comme l'hippocampe (*Hippocampus hippocampus*) ou la grande nacre (*Pinna nobilis*).

Concernant les substrats meubles, plus de 191 espèces y ont été identifiées. Ils sont largement dominés par les annélides polychètes, puis les mollusques, les crustacés ou encore les échinodermes.

Certaines espèces dites de passage sont observées dans la Réserve. Il s'agit des mammifères marins, des reptiles, des oiseaux marins. Des observations de cétacés (grand dauphin, dauphin bleu et blanc, rorqual commun) sont faites chaque année au sein de la Réserve.

Concernant les oiseaux marins, 5 espèces sont observées de façon occasionnelle dans le périmètre de la Réserve : *Alca torda*, *Puffinus puffinus mauretanicus*, *Puffinus yelkouan*, *Rissa tridactyla*, *Sterna sandvicensis*.

### **3.5. POPULATION HUMAINE ET UTILISATION DES RESSOURCES NATURELLES**

#### **3.5.1. Population humaine**

a) Habitants à l'intérieur de l'aire : Réserve Naturelle exclusivement marine

	Nombre	Date de recensement
Permanents (sur les 2 communes entourant la Réserve)	6 200	2015
Saisonniers additionnels (sur les 2 communes entourant la Réserve)	25 000	2015

b) Description de la population

Les communes de Cerbère et de Banyuls-sur-Mer représentent les deux stations balnéaires les plus au sud du département. Avec ses 4 700 habitants (année 2015), Banyuls-sur-Mer est la commune la plus peuplée qui borde la Réserve. Sa population estivale est multipliée par plus de 3 soit près de 22 000 personnes. La commune de Cerbère, compte quant à elle, 1 400 habitants et 2 400 en période estivale.

Argelès-sur-Mer, située à peine à 20 km des limites de la Réserve est la seule commune qui voit sa population multipliée par douze en période estivale, affichant ainsi environ 150 000 personnes en juillet/août.

c) Principaux établissements humains et leurs populations

**La commune de Banyuls-sur-Mer** comprend un camping et dix hôtels-restaurants. À Banyuls sur-Mer, la viticulture est une activité économique permanente. « Le Banyuls », Appellation d'Origine Contrôlée de 1936, est limité aux quatre communes de la Côte Vermeille, soit 1 800 hectares de vignes.

La commune héberge le laboratoire Arago (laboratoire de recherche en biologie marine) antenne Sorbonne Université de Paris, qui est à l'origine de la création de la Réserve. Le Biodiversarium regroupe un aquarium public et un jardin méditerranéen. De nombreux commerces en tous genres sont présents sur la commune.

**À Cerbère**, la principale activité est le tourisme. La commune comprend un camping municipal, cinq hôtels et une résidence de vacances. Des emplois tournent donc autour de cette activité. On y trouve aussi comme employeur le centre de rééducation et de réadaptation fonctionnelle (situé sur les abords de la Réserve), et quinze commerces en tout genre, boulangerie, épicerie, coiffeur, etc. La SNCF, très présente sur Cerbère par le passé, a fortement diminué ses dernières années.

#### **3.5.2. Utilisation humaine en cours et développement**

a) Décrire brièvement l'utilisation courante de l'aire - subsistance, artisanat, commerce, pêche récréative, tourisme, agriculture ou industrie.

Le tourisme de nature est en plein essor dans les Pyrénées-Orientales et le département, gestionnaire de la réserve fait partie des collectivités répondant à cette demande de plus en plus importante. Les visites de sites naturels remarquables ainsi que les activités de pleine nature rencontrent un succès croissant.

De part la beauté de ces paysages terrestres et sous-marins, la Réserve attire un grand nombre d'usagers d'activités nautiques de loisirs. La plongée sous-marine est l'activité la plus pratiquée dans la Réserve (près de 30 000 plongeurs sont comptabilisés depuis deux ans dans le périmètre de l'AMP). La randonnée aquatique est une activité dont la pratique augmente dans la Réserve (près de 25 000 personnes sont comptabilisés chaque été sur la plage de Peyrefite au niveau du sentier sous-marin). D'autres activités sont pratiquées dans la Réserve, parmi elles, la pêche professionnelle, la pêche récréative, le kayak, et les activités liées à la baignade sont particulièrement bien représentées ainsi que le stand up paddle qui prend de l'essor.

b) Qui sont les utilisateurs, combien de personnes dépendent de ces utilisations, le caractère saisonnier, et l'évaluation de l'importance sociale et économique de leur utilisation et l'impact perçu sur la conservation de l'aire, dans un score de 0-1-2-3 (signifiant nul, bas, moyen, élevé)

Activité et catégorie	Evaluation de l'importance		Nombre estimé des utilisateurs	Caractère saisonnier (indiquer les saisons)
	Socio-économique	Impact conserv.		
<b>PECHE</b>				
Subsistance	2	1	6 pêcheurs	Annuel
Commerciale, locale	2	1		
Commerciale, non-locale	0	0		
Récréative contrôlée	2	2	850 pêcheurs	Saisonnier (été) et Annuel pour 10 % des pêcheurs
Récréative non-contrôlée	0	0		
Autre				
<b>TOURISME</b>				
Contrôlé	3	2	Indéterminé	Saisonnier (été) et annuel pour la plongée sous marine
Non-contrôlé				
Type :				
- Tourisme de nature				
- Infrastructure d'accueil (hôtels, campings, et centre de vacances)				
<b>PRODUITS FORESTIERS</b>				
Subsistance	0	0	0	
Commerciale, locale (autres que bois)				
Commerciale, non-locale (autres que bois)				
Commerciale locale (Bois)				
Commerciale non-locale(Bois)				
Agriculture (viticulture)	0	2	Indéterminé	Annuel (pas dans la réserve mais sur le bassin versant) Absent Absent
Elevage	0	0	0	
Aquaculture	0	0	0	
<b>PATURAGE EXTENSIF DU BETAIL</b>				
Subsistance	0	0	0	
Commerciale, locale				
Commerciale, non-locale				
<b>AUTRES ACTIVITES</b>				
- Plongée	3	2	30 000	Annuel
- Randonnée aquatique	3	2	25 000	Printemps / été
- Kayak	1	1	2 000	Printemps / été
- Plaisance	2	1	Indéterminé	Printemps / été



### 3.5.3. Utilisations économiques ou de subsistance traditionnelles

Nommer toute activité traditionnelle respectueuse de l'environnement et intégrée avec le milieu naturel qui contribuent au bien-être des populations locales. Ex : utilisation de l'eau et de la terre, espèces ciblées, si les saisons de fermeture ou les zones fermées sont utilisées comme techniques de gestion.

Dans la Réserve, l'activité de la pêche professionnelle est réglementée par un arrêté préfectoral de 2016 qui en définit les conditions de pratique (ne concerne que les prélèvements de poissons au moyen de filets) et ne permet qu'à 15 petits métiers maximum d'exercer cette activité (hors zone de protection renforcée). Le produit de la pêche peut être directement vendu aux criées et / ou aux organisations de producteurs. La pêche est toutefois en constante régression et la réserve contribue au maintien de cette activité. De part les actions de sensibilisation réalisées et le partenariat mis en place entre la réserve et les petits métiers, les techniques employées sont maintenant plus respectueuses de la ressource et moins destructrices des habitats. Aujourd'hui, 6 pêcheurs possèdent une autorisation de pêche et seulement 3 fréquentent régulièrement la réserve.

L'activité de la pêche de loisir est également réglementée par un arrêté préfectoral qui en définit les conditions de pratique (ne concerne que les prélèvements de poissons au moyen de cannes à pêche) et impose aux pratiquants de retirer une autorisation de pêche au bureau de la Réserve. Cette autorisation, valable pour l'année civile en cours, est à présenter lors de contrôles éventuels sur le terrain par les autorités locales compétentes. Elle rappelle l'ensemble de la réglementation de la pêche récréative, les tailles minimales de capture et quotas pour chaque espèce. Cette réglementation a permis de tendre petit à petit vers une pêche respectueuse de l'environnement.

La plongée sous-marine est une activité qui a connu une forte augmentation ces quinze dernières années et qui continue à afficher des chiffres en progressions dans le département et notamment dans la réserve marine où plus de la moitié des plongées du département s'y effectuent. La beauté et la richesse des fonds sous-marins du littoral et notamment de la côte rocheuse attirent chaque année de plus en plus de plongeurs. Les sites de plongée, reconnus pour leur diversité ichtyologique, et relativement peu profonds offrent la possibilité au plongeur même débutant de les découvrir. Cette activité est pratiquée de manière libre ou encadrée soit par des structures associatives soit par des structures professionnelles. Hormis dans la partie intégrale de réserve où l'activité est interdite, la plongée sous-marine ne fait l'objet d'aucune réglementation particulière dans le reste de la réserve. Toutefois, une charte de bonne conduite a été mise en place depuis 2000 avec les structures de plongée, incitant à une plongée respectueuse du milieu. Cette activité génère automatiquement des retombées économiques importantes. 65 % des plongeurs qui fréquentent la réserve et qui n'habitent pas dans le département, ont choisi leur site de vacances en fonction de leur activité de plongée. Un texte réglementaire sur cette activité est en cours.

Troisième région française pour la plaisance, le Languedoc-Roussillon connaît une augmentation constante du nombre d'embarcations. Cette plaisance concerne les propriétaires de bateaux auxquels s'ajoute le flux de touristes profitant chaque année d'une quarantaine de centres de locations de bateaux, des entreprises de promenade en mer et des entreprises de croisière. Afin de réduire l'impact sur le milieu, 25 dispositifs de « mouillage écologique » ont été mis en place dans la Réserve. La vitesse des bateaux est limitée à 5 nœuds dans la bande des 300 mètres, à 3 nœuds dans les zones de mouillages organisés et à 8 nœuds dans le reste de la réserve. 4 dispositifs supplémentaires seront installés pour la saison 2019.

Le kayak de mer est lui aussi de plus en plus fréquent le long des côtes de la réserve. Pratiquée de manière libre ou encadrée, cette activité permet la découverte du littoral par une approche douce du milieu.

La découverte des fonds sous-marins en palme masque tuba depuis la surface, est une activité de plus en plus pratiquée par les touristes mais également par les locaux. Curieuses de mieux connaître le milieu marin, de nombreuses personnes tentent l'expérience chaque année, cette activité permet d'aller à la rencontre des espèces marines côtières. Des outils pédagogiques sont mis en place par la réserve pour sensibiliser ces usagers aux effets de la protection du milieu (points information, panneaux, sentier sous marin...).

#### **4. IMPORTANCE MÉDITERRANÉENNE DU SITE**

Cette section vise à mettre l'accent sur l'importance du site pour la conservation à l'échelle régionale ou globale, comme indiqué à l'Art 8, paragraphe 2, du Protocole et dans la section B2-a, B2-b et B2-c de l'Annexe I.

##### **4.1. PRESENCE D'ECOSYSTEMES / D'HABITATS SPECIFIQUES DE LA REGION MEDITERRANEENNE**

Nommer les types d'habitats ayant une spécificité méditerranéenne et leur superficie estimée (Ha), sur la base des classifications d'Habitats adoptées dans le cadre du PAM.

La Réserve Naturelle Marine de Cerbère-Banyuls offre un paysage sous-marin très diversifié. D'abord, **au niveau de l'étage supralittoral**, la roche est constamment mouillée par les embruns et offre une hospitalité de choix pour les mollusques et les crustacés. C'est dans cette zone que l'on retrouve également le trottoir à *Lithophyllum*, notamment dans les endroits exposés aux vents dominants, il est composé d'un empilement d'algues calcaires, support d'une multitude d'espèces animales et végétales. **Au niveau de l'étage médiolittoral et infralittoral**, entre 2 et 20 m de fond, on peut retrouver les herbiers de posidonies, une des principales richesses méditerranéennes, qui assurent leurs rôles de nurseries et de lieu de reproduction pour de nombreuses espèces. Sur notre littoral, les herbiers sont peu profonds en raison de la turbidité de l'eau. Ces prairies aquatiques regorgent de vie. Appelés « poumon vert de la Méditerranée », on y retrouve de nombreuses espèces : des grandes nacres, des hippocampes, des labridés, des poulpes ou encore des saupes. Ces habitats façonnent un paysage sous-marin très diversifié au sein d'unités écologiques plus homogènes constituées soit d'éboulis et de blocs rocheux issus de l'érosion des falaises, soit de roches massives, lieux de vie de la plupart des espèces communes de poissons : labridés, sparidés, et notamment le corb et le mérou brun. Très appréciés des plongeurs, les paysages sous-marins sont caractérisés par des gorgones blanches, de nombreuses espèces d'éponges ainsi que des bryozoaires. Le prolongement sous-marin des caps s'effectue avec la strate du coralligène située **au niveau de l'étage circalittoral**, et commence aux alentours des 20 m. Cet habitat recense plus de 500 espèces d'invertébrés tels que le corail rouge, la doris dalmatien, des gorgones blanches et rouges, les oursins, ainsi que de nombreux spongiaires. Il offre une multitude de fissures et de cavités qu'affectionnent le chapon, la langouste, la mostelle, la murène, et surtout le mérou, véritable espèce emblématique de la Réserve. Cette continuité de substrats durs est interrompue au niveau des baies et des criques, où les fonds sont constitués de bancs de sable plus ou moins grossier. Ces substrats meubles sont dominants au-delà des 30 m de profondeur où ils se caractérisent par un taux d'envasement assez important. Dans la Réserve, les fonds meubles occupent une surface de 459 ha soit 74 % de l'espace. 22 % de la zone concerne les fonds durs représentant une surface de 79 ha. Enfin, les habitats particuliers (herbier à *posidonia* et le coralligène) couvrent une surface de 80 ha soit 13 % de l'espace (voir description détaillée en annexe 2).

##### **4.2. PRESENCE D'HABITATS CRITIQUES POUR LES ESPECES EN VOIE DE DISPARITION, MENACEES OU ENDEMIQUES**

Un habitat critique est une aire essentielle à la conservation des espèces concernées. Ces espèces doivent être celles de l'Annexe II du Protocole. Ex : Ilots et ensembles de roches, telles que les petites îles ou les masses d'eau, essentiellement importants pour les colonies d'oiseaux d'eau, grottes appropriées pour les phoques moines, plages non perturbées où pondent les tortues marines, lagunes côtières où les espèces de poissons et d'oiseaux menacées se nourrissent et se reproduisent, estrans, substrats côtiers ou benthiques importants pour les invertébrés marins, etc. Nommer les types d'habitats et les espèces y vivant.

- **L'herbier de posidonies** représente un écosystème pivot des fonds littoraux méditerranéens. Cet habitat joue un rôle majeur au niveau écologique. Il est le premier pôle de biodiversité, regroupant 20 à 25% des espèces connues en Méditerranée. D'un point de vue fonctionnel, les herbiers de posidonies sont à la fois une zone de nutrition, de reproduction (frayère et nourricerie), de recrutement, mais également un abri pour de nombreuses espèces de poissons et d'invertébrés (enjeux économiques). De plus, la posidonie présente une forte production d'oxygène (environ 4,2 tonnes d'O<sub>2</sub>/hectares/an) qui constitue la base de nombreuses chaînes trophiques. Cette production d'oxygène permet de limiter les phénomènes de réduction et notamment le dégagement de H<sub>2</sub>S toxique au niveau du sédiment adjacent. Les herbiers amortissent également les effets hydrodynamiques de la houle et leur structure favorise le piégeage des particules dans la matte (lutte contre l'érosion des plages). Ils représentent aussi un excellent indicateur de la qualité des eaux. Particulièrement sensibles à la turbidité de l'eau et à l'impact des activités humaines, leur vitalité permet d'évaluer la qualité de la masse d'eau. Dans les herbiers de la réserve, 62 espèces ont été inventoriées en 2001. Parmi celles-ci on trouve les embranchements suivants : spongiaires (12 espèces), les cnidaires (7 esp.), les bryozoaires (19 esp.), les annélides (2 esp.), les mollusques (13 esp.) dont l'espèce protégée *Pinna nobilis*, les crustacés (6 esp.) et les tuniciers (3 esp.). Cet habitat constitue un rôle majeur pour la conservation des peuplements de poissons et plus particulièrement pour les labridés : il représente une zone de frayère qui abrite de nombreux juvéniles. **Cet habitat correspond à 3% de la surface de la réserve soit près de 23 ha.**

- **Le coralligène** de la Côte des Albères est une des rares formations de ce type dans la région Languedoc-Roussillon. Il constitue, après l'herbier de posidonies, le second pôle de biodiversité en Méditerranée avec la présence d'espèces protégées ou à haute valeur patrimoniale. On estime qu'il abrite près de 1700 espèces dont 315 d'algues, 1200 d'invertébrés et 110 de poissons. Dans la RNMCB, de nombreux travaux scientifiques ont été réalisés sur cet écosystème. Laubier (1966) a caractérisé le coralligène de la Côte des Albères et a permis d'identifier près de **530 espèces d'invertébrés dans cet habitat**. D'un point de vue **fonctionnel**, il forme un abri pour de **nombreuses espèces** à fort intérêt patrimonial ou commercial. Les fonds coralligènes sont également des zones de recrutement et de nutrition. Il s'agit enfin de lieux de pêche privilégiés pour les crustacés (langoustes, etc.) et les poissons (Sparidés, etc.). Leur complexité structurale et la beauté des peuplements d'invertébrés associés (corail rouge, gorgones, éponges, bryozoaires) font des formations coralligènes des paysages sous-marins exceptionnels attirant de nombreux plongeurs. Le coralligène constitue une formation biogénique remarquable dans la réserve. Une attention particulière est portée à cet habitat qui représente 53 ha soit 10% de la superficie de la réserve.

#### **4.3. AUTRES CARACTERISTIQUES APPROPRIÉES (art 8, par. 2 du Protocole)**

##### **4.3.1. Intérêt éducatif (Section B-3 de l'annexe I)**

Ex : Valeurs particulières pour les activités d'éducation environnementale ou de sensibilisation.

La stratégie d'éducation à l'environnement de la Réserve Naturelle Marine de Cerbère-Banyuls est issue d'une réflexion transversale afin de répondre au mieux aux objectifs pédagogiques fixés par l'Éducation Nationale et à la stratégie départementale de sensibilisation mise en place par le Département des PO, gestionnaire de l'espace. Bénéficiant d'un service éducatif, la Réserve tient une place importante dans l'éducation à l'environnement du Département. En effet, l'accueil de scolaires et la participation à des manifestations et conférences existent depuis de nombreuses années au sein de la structure, l'été des animations gratuites à destination du grand public sont proposées. La réserve propose un accueil du public et des animations variés tout au long de l'année. Plus de 3500 personnes bénéficient chaque année de ces actions de sensibilisation.

#### 4.3.2. Intérêt scientifique (Section B-3 de l'annexe I)

Expliquer si le site représente une valeur particulière pour la recherche dans le domaine des sciences naturelles et patrimoniales.

De nombreuses études scientifiques sont réalisées chaque année dans la Réserve Marine et de nombreux partenariats scientifiques ont été développés. Ces études permettent d'améliorer les connaissances relatives au milieu marin et ainsi permettre au gestionnaire de prendre toutes les mesures utiles pour maintenir dans un parfait état de conservation ce milieu fragile. Son statut d'espace marin protégé à taille humaine a permis de valider des options de gestion de l'environnement étudiées avec les autres parcs et réserves du monde entier. Les efforts consentis au fil des années ont permis de faire de ce site un laboratoire à ciel ouvert pour les scientifiques. La présence du Laboratoire Arago, antenne de Sorbonne Université, atteste de la valeur particulière que peut apporter notre espace protégé. Lors de son dernier plan de gestion, la réserve, a identifié un enjeu spécifique à la valorisation de la réserve en tant que site pilote pour la recherche scientifique (annexe 5 : bibliographie).

#### 4.3.3. Intérêt esthétique (Section B-3 de l'annexe I)

Nommer et décrire sommairement tout élément naturel extraordinaire ainsi que les paysages marins et terrestres remarquables.

Située en bordure de la côte Vermeille au pied du massif des Albères (contrefort de la chaîne des Pyrénées), la Réserve Naturelle se situe en plein cœur de la côte rocheuse catalane entre Banyuls-sur-Mer et Cerbère. Elle est fortement découpée et présente une succession de caps limitant de petites anses sablo-gravillonnaires entre des falaises atteignant 30 à 100 m de hauteur. La topographie sous-marine reflète cette morphologie aérienne. C'est ainsi que l'on trouve des fonds de 60 m à moins de 2 km du rivage (plateau continental étroit et de forte pente en face de *la côte Vermeille*) alors qu'on ne les rencontre qu'à 10 km de la côte dans la région d'Argelès-sur-Mer sur fonds sableux.

#### 4.3.4. Intérêt patrimonial sur le plan culturel

Indiquer si l'aire renferme des activités traditionnelles respectueuses de l'environnement et intégrée avec le milieu naturel.

L'activité de pêche professionnelle dite « petit métier » reste la principale activité traditionnelle sur la Réserve. Le produit de la pêche est généralement vendu directement aux criées et / ou aux organisations de producteurs.

## 5. IMPACTS ET ACTIVITES AFFECTANT L'AIRE

### 5.1. IMPACTS ET ACTIVITES AU SEIN DU SITE

#### 5.1.1. Exploitation des ressources naturelles

Évaluer si les taux courants d'exploitation des ressources naturelles au sein de l'aire (exploitation de sable, collecte de bois, pêche et pâturage) sont jugés non durables en qualité, et essayer de quantifier ces menaces, par exemple le pourcentage de l'aire menacée, ou toute augmentation connue des taux d'extraction.

Deux activités représentent une source de pression par le prélèvement sur les espèces (crustacés, poissons, etc.) : la pêche professionnelle et la pêche récréative. La surexploitation par la pêche représente l'un des principaux facteurs d'influence sur l'état de conservation des peuplements de poissons. La réglementation mise en place pour ces deux activités permet de maintenir ces pratiques et de les rendre durables dans la réserve.

#### 5.1.2. Menaces sur les habitats et les espèces

Mentionner toutes les menaces sérieuses pour les habitats marins ou côtiers (ex : modification, dessiccation, perturbation, pollution...) ou sur les espèces (ex: perturbation, braconnage, introduction d'espèces étrangères...) dans l'aire.

- **L'activité de pêche professionnelle et de loisir** apparaît comme la source de pression la plus importante pour les habitats et les espèces. La réglementation de la pêche professionnelle en vigueur dans la Réserve (autorisations obligatoires, nombre d'autorisations limité, limitation du nombre d'engins de pêche, limitation de la longueur des engins, etc.) ainsi que celle de la pêche récréative (autorisations obligatoires, tailles minimales de captures, quotas par espèce etc.) permettent de limiter les prélèvements et de veiller à ce que leur pratique soit en adéquation avec la conservation des ressources halieutiques de la Réserve. La forte présence des agents sur la Réserve limite fortement toute action de braconnage.

- **La plaisance** peut être une menace potentielle pour le milieu. L'utilisation d'ancre et de chaînes de mouillage dégrade les fonds et les espèces. La mise en place de deux zones de mouillage organisé dans la Réserve permet de réduire considérablement cet impact (29 bouées sont à disposition le long de la Réserve).

- **Les plongeurs** génèrent, par leurs gestes anodins, de nombreuses contraintes mécaniques et physiques pour le milieu dans lequel ils évoluent (coups de palmes, envasement des peuplements, frottements des robinetteries, émissions de bulles dans les surplombs). Une pratique inadaptée de la plongée sous-marine peut dégrader les fonds (mauvais lestage des plongeurs qui se déplacent trop près du fond). Les plongeurs sous-marins peuvent générer un stress pour les peuplements de poissons (usages de la lampe, passage à répétition des plongeurs). Ce stress peut avoir des effets négatifs sur l'efficacité de reproduction de certaines espèces (mérus, par exemple). Une charte de bonne conduite est proposée aux plongeurs. Depuis peu, une réflexion sur la mise en place d'un texte réglementant cette activité dans la Réserve a été engagée et devrait être mis en place pour 2019.

#### 5.1.3. Besoins et infrastructures découlant de l'accroissement des populations

Évaluer si la présence humaine actuelle, une intensification attendue des fréquentations (tourisme, passage de véhicules et de bateaux), l'immigration vers l'aire ou des projets de construction d'infrastructures sont considérés comme menaces.

La Réserve de Cerbère-Banyuls est localisée dans une zone peu urbanisée. Les communes de Banyuls et de Cerbère disposent chacune d'un port. Les structures d'accueil sont calibrées pour chacune des communes. Le nombre de touristes sur la côte reste donc stable chaque année. Il n'y a aucun projet de construction sur notre partie du littoral. Seule une mise en sécurité du port de Banyuls est prévue pour 2020. Celle-ci aura peu d'incidence sur l'aire marine.

#### 5.1.4. Conflits historiques actuels

Faire un bref exposé sur les conflits historiques ou courants entre les utilisateurs ou les groupes d'utilisateurs.

Une présence forte des agents sur la Réserve permet de mieux contrôler les usages et d'évaluer leur évolution sur le périmètre. Cette présence est donc l'occasion de mieux comprendre les techniques utilisées (notamment pour la pêche), les contraintes induites par chaque activité et d'évaluer les conflits d'usages pour mettre en place des mesures de gestion adaptées et comprises par tous. Historiquement, la pêche professionnelle était bien installée sur la zone. Progressivement, la mise en place de zones de mouillage et le développement du tourisme ont privé les pêcheurs d'exploiter certaines de ces zones, ce qui a pu entraîner des sources de conflits entre les plongeurs et plaisanciers et les pêcheurs. Aujourd'hui, la Réserve, grâce à son statut de pionnier mais également à de nombreuses actions d'information et de sensibilisation apparaît comme un espace où toutes les activités cohabitent dans le respect de l'environnement.

## 5.2. IMPACTS ET ACTIVITES AUTOUR DU SITE

Dans l'article 7.2-e, le Protocole appelle à la réglementation des activités compatibles avec les objectifs pour lesquels une ASP a été déclarée, telles que celles qui pourraient nuire ou perturber les espèces ou les écosystèmes (Art. 6, h). La section B4 de l'annexe I prévoit que l'on considère "l'existence de menaces susceptibles de porter atteinte à la valeur écologique, biologique, esthétique ou culturelle de l'aire", "l'existence dans l'aire d'opportunités de développement durable" et "l'existence d'un plan de gestion côtier intégré au sens de l'article 4, paragraphe 3 de la Convention".

### 4.2.1. Pollution

Nommer toute source précise ou non précise de pollution externe dans les aires avoisinantes y compris les déchets solides et les pollutions qui contaminent l'eau en amont.

Deux activités principales ont été identifiées comme source de pollution : le tourisme (activité portuaire, traitement des eaux usées, etc.) et l'activité agricole liée à l'exploitation de la vigne. À ce titre plusieurs sources de pollution ont été identifiées :

**- Le rejet des eaux usées par les stations d'épuration** : deux stations d'épuration sont présentes aux abords de la Réserve : une station d'épuration à Banyuls sur mer et une station d'épuration à Cerbère. Parmi ces deux établissements, la station d'épuration de Banyuls sur mer peut présenter un impact potentiel sur les habitats et les espèces sous-marines (compte-tenu de la proximité du rejet de l'émissaire et des conditions courantologiques dominantes). En 2012, cette station a été mise aux normes biologiques, ce qui réduit les risques de pollution liés au traitement des eaux usées dans la Réserve. Dans ce contexte, des analyses de la qualité bactériologique des eaux traitées rejetées par la station d'épuration sont faites régulièrement.

**- Les apports polluants des bassins versants et des fleuves côtiers** : plusieurs cours d'eau peuvent influencer la qualité physico-chimique des eaux littorales : la Baillaury et les nombreux « recs » qui se déversent le long du littoral de la Réserve. Les fleuves qui se déversent au Nord de la Réserve, à savoir le Tech, la Têt, etc. peuvent avoir une influence sur la qualité de la masse d'eau côtière. Au niveau de la Réserve, les différentes activités qui se pratiquent en amont des bassins versants de la zone, peuvent constituer une source de pollution de la qualité des eaux littorales (ruissellement des eaux issues des bassins versants qui drainent les résidus des traitements agricoles). Parmi elles, la viticulture à travers l'utilisation de produits phytosanitaires (métaux lourds, pesticides, etc.) représente une source de pollution potentielle que le gestionnaire doit surveiller. Étant donné le caractère intermittent des cours d'eaux débouchant sur la Réserve, les produits phytosanitaires sont difficilement détectables dans les analyses en milieu marin. La Réserve participe depuis de nombreuses années aux différents réseaux de surveillance nationaux permettant de suivre les concentrations en contaminants dans la masse d'eau côtière (surveillance DCE, réseau ROCCH-IFREMER, etc.).

- **Macro-déchets** : Au niveau de la Réserve, de nombreuses actions de sensibilisation sont réalisées auprès des usagers afin de réduire la présence de ces macro-déchets (plaisanciers, usagers des plages, etc.). Lors des surveillances (marines et terrestres), les agents collectent les déchets observés en surface afin de limiter leur impact sur la faune sous marine ou sous la surface lors de plongées dans le cadre de suivis scientifiques.

- **Pollutions accidentelles par hydrocarbures** : Les pollutions par hydrocarbures représentent un risque envisagé par le gestionnaire. Afin de mettre en œuvre des moyens adaptés en cas de pollutions par hydrocarbures, la Réserve a intégré le dispositif « Infra-POLMAR ».

- **Rejet des eaux usées des navires de plaisance** : Les zones de mouillages organisés sont susceptibles d'être polluées par le rejet des eaux usées des navires de plaisance. Une surveillance régulière et des actions de sensibilisation sont effectuées pour limiter ces risques.

#### 4.2.2. Autres menaces externes naturelles ou anthropiques

Décrire brièvement toute autre menace externe pour les valeurs écologiques, biologiques ou culturelles de l'aire (tels que l'exploitation non réglementée des ressources naturelles, menaces sérieuses sur les espèces, présence humaine accrue, problèmes de pollution externes, des plans de développement sectoriels et des projets proposés, etc.), pouvant avoir une influence sur l'aire en question.

Divers facteurs environnementaux influencent la distribution et la conservation des habitats et des espèces de la Réserve :

- **La température de l'eau** : Le réchauffement climatique serait une des premières causes d'extinction d'espèces et de déplacement de populations vers des eaux plus froides.

- **La turbidité de l'eau** : La turbidité de l'eau est très importante et la pénétration de lumière en profondeur est limitée. Une remontée des habitats et des espèces est caractéristique de la distribution des biocénoses de la Réserve.

- **Les apports d'éléments minéraux** en suspension (sables, vases remis en suspension par des aménagements portuaires, etc.) : L'augmentation de turbidité engendrée par la mise en suspension des éléments minéraux génère des perturbations des espèces sensibles comme par exemple la posidonie.

- **L'hydrodynamisme** : Il peut influencer la distribution de nombreuses espèces sous-marines.

#### 4.2.3. Mesures de développement durable

Indiquer si l'aire est couverte par un plan de gestion côtier intégré ou si elle est limitrophe d'une zone couverte par un tel plan. Existe-t-il des opportunités de développement durable dans la zone limitrophe de l'aire ?

La Réserve naturelle ne bénéficie pas d'un contrat de baie mais uniquement d'un plan de gestion qui planifie les actions à mener pour 5 ans. Le premier plan de gestion (2001-2005) a permis la mise en œuvre d'actions de surveillance, de protection et de sensibilisation du milieu marin. Il a également permis le développement des études scientifiques sur le périmètre de la Réserve. Le second plan de gestion (2007-2011) a permis la poursuite de la mise en œuvre des actions de connaissance et de protection des habitats et des espèces et le développement des connaissances sur la biodiversité : mise en place de suivis à long terme. **La Réserve bénéficie aujourd'hui de son troisième plan de gestion 2015-2019 (Annexe 3)**. L'année 2020 sera consacrée à l'évaluation de ce dernier tandis que débutera en 2021 la rédaction du nouveau plan de gestion qui devrait s'étaler sur une durée de 10 ans. Véritable instrument de planification, ce document s'appuie sur une démarche de projet dont les principales étapes sont l'établissement d'un diagnostic, la formulation d'objectifs et la définition d'un programme. Considérée comme un **site pilote au niveau national** pour la mise en place de la nouvelle méthodologie de rédaction des plans de gestion, la Réserve a répondu aux attentes de Réserves Naturelles de France et de la DREAL. La Réserve est entièrement intégrée au Parc Naturel Marin du Golfe du Lion qui bénéficie lui aussi d'un plan de gestion pour une durée de 15 ans. Ce document prend en compte la spécificité de la Réserve.

## 6. EVOLUTION PREVISIBLE DU SITE<sup>1</sup>

L'évolution prévisible du site n'apparaît pas dans la liste des critères communs pour le choix des aires marines et côtières qui pourraient être inscrites sur la liste des ASPIM, telle qu'établie dans le Protocole et l'annexe I.

De plus elle n'est pas toujours facile à déterminer et nécessite de disposer de connaissances sur le site dont tous les gestionnaires d'aires protégées ne disposent pas nécessairement.

Il n'est donc pas obligatoire de remplir les cadres qui suivent.

Par contre la détermination de cette évolution tendancielle prévisible vient compléter de façon dynamique la connaissance statique du site, telle qu'elle apparaît dans les chapitres 3 ; 4 et 5 précédents. Elle est de plus d'une très grande importance pour définir les objectifs et le plan de gestion du site.

Il apparaît donc souhaitable de tenter d'en dégager les grandes lignes au moins pour les points suivants :

### **6.1. EVOLUTION PREVISIBLE DES MENACES ET DES PRESSIONS QUI PESENT SUR LE SITE**

Traiter brièvement successivement :

- De l'évolution démographique dans et autour du site.
- De l'évolution des activités économiques (hors tourisme et loisirs) dans le site.
- De l'évolution de la demande locale sur le plan récréatif
- De l'évolution de la pression touristique sur le site.

Les communes littorales des Pyrénées-Orientales ont connu une très forte augmentation de la population ces 40 dernières années. Les communes de Cerbère et de Banyuls-sur-Mer représentent les deux stations balnéaires les plus au sud du département. Banyuls-sur-Mer est la commune la plus peuplée qui borde la Réserve. Sa population estivale est multipliée par 4. **L'évolution démographique** de ces deux communes semble stabilisée. La mise en place d'une réglementation spécifique permet de connaître et maîtriser les différentes **activités économiques**. La seule activité de pêche professionnelle autorisée dans la Réserve est la pêche dite « petits métiers ». Seules 15 autorisations maximum peuvent être délivrées mais seulement 6 pêcheurs dont 3 réguliers travaillent dans la Réserve. Son évolution est donc maîtrisée. La plongée sous-marine est une activité en plein essor dans le département. Dans la Réserve, elle a connu une forte augmentation durant ces quinze dernières années. Aujourd'hui, elle continue à augmenter légèrement jusqu'à dépasser la barre des 30 000 plongeurs depuis 2017. Cette activité sera prochainement réglementée afin de mieux l'encadrer. **Sur le plan récréatif**, le tourisme de nature est en plein essor dans les Pyrénées-Orientales et le département, gestionnaire de la Réserve, fait partie des collectivités répondant à cette demande. Les visites de sites naturels remarquables ainsi que les activités de pleine nature rencontrent un succès croissant. De part la beauté de ces paysages terrestres et sous-marins, la Réserve attire un grand nombre d'usagers d'activités nautiques de loisirs. La présence de la mer et de la montagne attire chaque année un nombre important de touristes. Avec plus de 20 millions de nuitées, le littoral catalan fait partie des destinations phares de l'hexagone. **La pression touristique** semble se stabiliser depuis quelques années sur le site. Elle est due en partie par la limitation des structures d'accueil sur le territoire. Enfin, le sentier sous-marin, mis en place par la Réserve depuis 2001, attire chaque année de nombreux visiteurs. Le suivi de cette fréquentation est primordial afin de garantir que la fréquentation du sentier sous-marin soit en adéquation avec les objectifs de conservation du patrimoine naturel.

<sup>1</sup> On appelle évolution prévisible d'un site, l'évolution dont on pense qu'elle a le plus de chance de se produire en l'absence de toute intervention volontariste liée à la protection et à la gestion du site.



## **6.2. CONFLITS POTENTIELS SUR LE SITE**

Faire un bref exposé des conflits d'usages potentiels entre les utilisateurs ou groupes d'utilisateurs du site.

En 2003, lors de la mise en place des mouillages écologiques sur le site, des conflits d'usages ont eu lieu entre les pêcheurs professionnels à qui l'on retirait des zones de pêche potentielles et les plongeurs qui fréquentaient cette zone. Aujourd'hui, les pêcheurs ont par eux-mêmes limité leur activité dans ces zones très fréquentées par la plongée sous-marine (cap de l'Abeille). La réglementation prévue en 2019 pour encadrer la pratique de la plongée sous-marine permettra, entre autres, de rééquilibrer le partage de la zone.

## **6.3. ÉVOLUTION PRÉVISIBLE DU MILIEU NATUREL TERRESTRE ET DES PAYSAGES**

L'évolution des pressions sur le site se répercute sur son milieu et sur son paysage : Esquisser en quelques phrases les grandes lignes de l'évolution du milieu naturel terrestre et du paysage découlant de l'évolution des pressions.

L'évolution des différentes pressions sur le site ont conduit le gestionnaire à procéder à quelques aménagements terrestres. Plus de 20 panneaux ont été positionnés au niveau des différents accès de la Réserve entre les communes de Cerbère et de Banyuls-sur-Mer, ainsi que dans les 4 ports espagnols les plus proches (traduits en Catalan), afin d'informer le public sur la réglementation spécifique de la zone. Des marques à terre signalisant clairement la zone de protection renforcée ont également été mises en place pour éviter toutes actions de pêche et de plongée à l'intérieur de ce périmètre. Des panneaux, rappelant la réglementation, ont été ajoutés sur les différentes plages et accès à la mer de la Réserve. Au niveau du sentier sous marin, sur la partie terrestre, des espaces de stationnement ont été aménagés afin de limiter l'impact.

## **6.4. ÉVOLUTION PRÉVISIBLE DU MILIEU MARIN ET DES PAYSAGES SOUS-MARINS**

Idem 6.3, mais pour le milieu marin.

Sur la partie aquatique, 25 dispositifs de mouillages écologiques ont été mis en place sur les sites de plongée afin de limiter les dégradations physiques sur les fonds. Pour 2019, la Réserve sera équipée de 4 nouveaux dispositifs permettant de limiter un peu plus l'impact des ancres sur le fond mais également aménager la fréquentation sur site. Un renforcement du balisage en mer a également été effectué. Une convention avec le service des Phares et Balises a été passée afin de proposer aux usagers un balisage de qualité.

Concernant les paysages sous marin, des études sont régulièrement effectuées (herbiers de posidonies, coralligène...) afin de mieux connaître leur état de conservation et être plus réactif à toutes les perturbations qui pourraient être causées par la fréquentation des plongeurs ou des pêcheurs.

## 7. STATUT DE PROTECTION

### **7.1. STATUT JURIDIQUE** (Principes Généraux "e" et C-2, les deux dans l'annexe I)

#### 7.1.1. Historique de la protection du site

Dans les années 1960, l'augmentation de l'activité de pêche jusque là très artisanale (développement des grosses unités de pêche), et l'évolution des activités de loisir et touristiques, ont eu pour conséquence une dégradation considérable des fonds de la Côte Vermeille. Consciente de la nécessité de protéger la côte d'une telle dégradation, la mairie de Cerbère prend l'initiative de demander au laboratoire Arago un rapport scientifique en vue de créer une réserve biologique. En 1971, le Laboratoire Arago de Banyuls-sur-Mer présente un rapport scientifique justifiant la création d'une Réserve marine en soulignant la nécessité de protéger certaines espèces particulièrement menacées. Les conclusions sont donc favorables à la création « d'une Réserve biologique marine le long de la côte de Cerbère ». En 1972, la commune de Banyuls-sur-Mer s'associe au projet. Après l'enquête publique ouverte en 1973, la Réserve Naturelle Marine de Cerbère-Banyuls est créée le 24 février 1974 par arrêté interministériel. C'est la 1<sup>ère</sup> et unique réserve strictement marine, la 9<sup>ème</sup> créée en France et la 2<sup>ème</sup> des Pyrénées-Orientales.

#### 7.1.2. Textes juridiques qui régissent actuellement la protection du site

Mentionner la catégorie de la conservation nationale, les dates et le statut actuel de l'application de l'instrument juridique déclarant la protection de l'aire. Tenir compte des aires terrestres et marines du site. Insérer le(s) texte(s) intégral(aux) en annexe : Voir annexe 4

- **Le décret 90-790 du 6 septembre 1990** porte création de la Réserve Naturelle Marine de Cerbère-Banyuls. Il annule et remplace l'arrêté de 1974 et instaure une nouvelle gouvernance dans la gestion des espèces du site en y impliquant les usages et les usagers. Il pérennise la zone de protection renforcée du cap Rédéris.
- **L'arrêté préfectoral 4525/99 du 27 décembre 1999** porte réglementation du balisage en mer de la Réserve
- **L'arrêté préfectoral 2010221-0010 du 9 août 2010** complètent la délimitation de la zone renforcée à terre.
- La circulation des navires est réglementée par **un arrêté préfectoral 1/2000 du 24 janvier 2000** portant réglementation de la circulation et du mouillage à l'intérieur de la Réserve.
- La pêche récréative est réglementée par **l'arrêté préfectoral du 23 mars 2016** portant réglementation de la pêche récréative dans le périmètre de la Réserve.
- La pêche professionnelle est réglementée par un **arrêté préfectoral n°R93-2016-06-13-001 du 13 juin 2016** qui mentionne les règles particulières de la pêche professionnelle dans la Réserve.
- Des mouillages organisés sont mis à disposition des usagers. La première zone, située au niveau du cap de l'Abeille, comprend 20 mouillages. Elle est réglementée par **l'arrêté préfectoral 4652/2004 du 6 décembre 2004** portant autorisation d'occupation temporaire du Domaine Public Maritime au bénéfice du Département des PO pour aménager, organiser et gérer une zone de mouillage et d'équipement légers. **L'arrêté inter préfectoral N°DDTM-DML-UGL-2016238-0001 du 25 août 2016** apporte des précisions sur l'utilisation de la zone. La seconde zone, prévue par **l'arrêté du 28 décembre 2011** a été mise en place au niveau de la baie de Peyrefite, au sud de la Réserve, afin de favoriser les usagers désirant visiter le sentier sous marin en bateau.
- **L'arrêté n°2013357-004 du 23 décembre 2013** portant réglementation de la pêche de différentes espèces de mérours dans les eaux territoriales en Méditerranée continentale.
- L'arrêté R93-2018-12-20-002 du 20 décembre 2018 portant réglementation de la pêche du corb ( *Sciaena umbra* ) dans les eaux maritimes de Méditerranée continentale.
- **l'arrêté du 26 novembre 1992** fixant la liste des animaux de la faune marine protégée sur l'ensemble du territoire.
- **l'arrêté du 1<sup>er</sup> juillet 2011** fixant la liste des mammifères marins protégés sur le territoire national et les modalités de leur protection.

Voir l'intégralité des textes en annexe 4

### 7.1.3.

#### Objectifs (Principes Généraux "a" et D-1 de l'annexe I)

Nommer par ordre d'importance les objectifs de l'aire tels qu'énoncés dans la déclaration juridique y relative.

La Réserve garantit la protection et la diversité, non seulement, des espèces animales et végétales, mais aussi des habitats dans lequel elles vivent. Les objectifs de la Réserve fixés par son plan de gestion sont les suivants :

- garantir la préservation des écosystèmes (herbier de posidonies, coralligène...) et de la biodiversité
- être une zone fonctionnelle fondamentale pour le maintien de la biodiversité de la Côte Vermeille
- être une zone refuge pour les peuplements de poissons en garantissant à la fois un bon état de conservation pour les espèces indicatrices de la pression de prélèvement, une structure de taille équilibrée pour les espèces cibles, une présence d'individus de taille importante mais également un bon état de conservation pour les espèces «rares».
- être une zone refuge pour les espèces de poissons patrimoniales (corbs et mérours bruns)
- être un site de référence pour le corail rouge et un site prioritaire pour la grande nacre
- être une zone interdite aux prélèvements de fruits de mer (moules, oursins),
- être une zone de passage pour des espèces patrimoniales (tortue caouanne, dauphins).

Le décret de création n°90-790 du 6 septembre 1990, dans son chapitre 3, fixe la réglementation applicable sur l'aire.

#### 7.1.4. Préciser si le statut de protection national découle de traités internationaux en vigueur ou de mesures d'application de traités (Art. 6 para. a du Protocole).

Le statut de protection national de la Réserve ne découle pas de traités internationaux. La Réserve a été officialisée le 26 février 1974 par l'arrêté interministériel signé du Ministre des Transports et de la Mer et du Premier Ministre de l'Environnement français. Le décret 90-790 du 6 septembre 1990 qui annule et remplace l'arrêté du 26 février 1974 marque une étape importante pour la définition des statuts de la Réserve car il précise les activités humaines autorisées et interdites sur ses deux zones (générale et intégrale).

## **7.2. STATUT INTERNATIONAL**

### 7.2.1. Aires transfrontalières ou situées en haute mer (Art 9 para 3a du Protocole)

Cette rubrique n'est à compléter que si l'aire est transfrontalière ou située en tout ou en partie en haute mer, ou dans des zones où les limites de la souveraineté ou de la juridiction nationale ne sont pas encore définies. Dans ce cas indiquer les modalités de consultation entre les Parties concernées.

### 7.2.2. Catégorie internationale

Mentionner si l'aire ou une partie de l'aire a été classée, et depuis quelle date, dans une catégorie de conservation internationale (ex: Aire Spécialement Protégée, Réserve de la Biosphère, Site Ramsar, Site du Patrimoine Mondial, Diplôme Européen, Natura 2000, Réseau Emeraude, etc...)

La Réserve est intégrée dans le périmètre d'un site Natura 2000 « Posidonies de la Côte des Albères » (site FR 910 1482) et dans le site Natura 2000 « Cap Béar – Cap Cerbère ». Depuis 2011, elle s'intègre dans le périmètre du Parc Naturel Marin du Golfe du Lion (voir carte globale en annexe). De plus, depuis 2014, la Réserve Naturelle Marine de Cerbère-Banyuls est inscrite sur la liste verte de L'Union Internationale pour la Conservation de la Nature. Ce label met l'accent sur la qualité de gestion et de gouvernance d'aires protégées, au regard de standards internationaux. Enfin, fin 2018, la Réserve a été reconnue par l'organisme Marine Conservation Institute qui lui a attribué le statut de refuge mondial appelé « Glores ».

Mentionner brièvement si l'aire ou une partie de l'aire fait l'objet d'une réclamation juridique, ou de dossier ouvert à ce propos dans le cadre d'instances internationales. Décrire les régimes fonciers de l'aire et joindre si disponible une carte.

La Réserve Naturelle Marine de Cerbère-Banyuls ne fait pas l'objet d'une réclamation juridique. Elle est située dans la partie occidentale du Golfe du Lion, en bordure de la côte rocheuse du département des Pyrénées-Orientales (Région Occitanie). D'une superficie totale de 650 ha, la totalité de sa surface est située sur le Domaine Public Maritime, au droit des communes de Banyuls-sur-Mer et de Cerbère (Voir cartes en annexe 1)

## **7.4. DISPOSITIONS JURIDIQUES DE GESTION** (D-1 de l'annexe I)

### 7.4.1. Zonage

Présenter brièvement si le texte juridique protégeant l'aire stipule pour les différentes zones, différents objectifs de gestion de l'aire (ex : noyau et zones scientifiques sur terre et en mer, zones de pêche, visites, réunions, zones de restauration etc. ... ). Indiquer, dans ce cas, les surfaces de ces zones et joindre une carte en annexe.

D'une superficie totale de 650 ha, la Réserve présente 2 niveaux de protection : une zone protégée correspondant à la plus grande superficie de l'espace soit près de 600 hectares où la majorité des activités humaines sont réglementées et une zone de protection renforcée de 65 hectares où toutes les activités humaines y sont interdites, hormis sa traversée en respectant la limitation de vitesse réglementée et la pratique de randonnée aquatique en surface. Le décret N°90-790 du 6 septembre 1990 présente dans son chapitre 1 la création et délimitation de l'aire. Dans son chapitre 3, il mentionne la réglementation applicable sur l'ensemble de l'espace et précise dans les articles 8 et 17 la réglementation spécifique de la zone de protection renforcée (annexes 1 et 4).

### 7.4.2. Règlements fondamentaux

Indiquer les dispositions applicables à l'aire concernant l'application de l'article 6 du Protocole (paragraphe (a) à (i)), du point D5 (a à d) de l'annexe I et de l'article 17 du Protocole.

Le décret de création n°90-790 du 6 septembre 1990, dans son chapitre 3, fixe les mesures de protection à savoir :

- interdiction de porter atteinte de quelque manière que ce soit aux animaux d'espèce non domestique ainsi qu'à leurs oeufs, couvées, portées ou nids, ou de les emporter hors de la réserve,
- interdiction de troubler ou de déranger les animaux par quelque moyen que ce soit,
- interdiction d'introduire dans la réserve tous végétaux sous quelque forme que ce soit, sauf autorisation délivrée par le ministre chargé de la protection de la nature après consultation du Conseil national de la protection de la nature,
- interdiction de porter atteinte de quelque manière que ce soit aux végétaux, sauf à des fins d'entretien de la réserve, ou de les emporter en dehors de la réserve, sous réserve d'autorisations délivrées à des fins scientifiques par le préfet après avis du comité consultatif,
- interdiction d'abandonner, de déposer ou de jeter tout produit quel qu'il soit de nature à nuire à la qualité de l'eau, de l'air, du sol ou du site ou à l'intégrité de la faune et de la flore, à l'exception des rejets faisant déjà l'objet d'autorisations. Toute modification des caractéristiques de ces rejets et tout nouveau rejet sont soumis à autorisation du ministre chargé de la protection de la nature après avis du Conseil national de la protection de la nature,

- interdiction d'abandonner, de déposer ou de jeter des détritrus de quelque nature que ce soit,
- interdiction de troubler la tranquillité des lieux en utilisant tout instrument sonore.
  - interdiction de tout travail public ou privé, à l'exception de ceux nécessités par l'entretien de la réserve, la sécurité de la navigation et l'exercice de la pêche professionnelle dans les conditions fixées par le présent décret. Ces travaux sont autorisés par le préfet des Pyrénées-Orientales après avis du comité consultatif
    - interdiction de toute activité de recherche ou d'exploitation minière
    - interdiction de collecte des minéraux et des fossiles, sauf autorisation délivrée à des fins scientifiques par le préfet après avis du comité consultatif
    - interdiction de toute activité industrielle,
    - interdiction de toute publicité quelle qu'en soit la forme, le support ou le moyen dans la réserve naturelle,
      - utilisation à des fins publicitaires de toute expression évoquant directement ou indirectement la réserve soumise à autorisation délivrée par le préfet des Pyrénées-Orientales après avis du comité consultatif.

De plus, les activités telles que la pêche de loisir et professionnelle, la plongée sous marine, la circulation et le stationnement des embarcations et des personnes sont réglementées par arrêté du préfet maritime après avis du comité consultatif.

#### 7.4.3. Compétences juridiques

La section D4 de l'annexe I stipule que la compétence et la responsabilité relatives à l'administration et à la mise en œuvre des mesures de conservation pour les aires candidates à l'inscription sur la liste des ASPIM doivent être clairement définies dans les textes régissant chaque aire. En outre l'article 7.4. du Protocole appelle à l'élaboration d'une clause pour les compétences claires et la coordination entre les autorités terrestres et maritimes nationales pour assurer une administration et une gestion appropriées de l'aire protégée dans son ensemble.

Mentionner dans quelle mesure les dispositions juridiques établissent clairement les compétences et les responsabilités institutionnelles pour l'administration et la conservation de l'aire et si c'est le cas, leurs moyens de coordination, y compris ceux entre les autorités terrestres et maritimes.

Le chapitre 2 du décret de création de la Réserve et plus particulièrement son article 2 stipule que le préfet des Pyrénées-Orientales, après avoir demandé l'avis des communes de Cerbère et de Banyuls, confie par voie de convention la gestion de la réserve naturelle à une collectivité locale, une association, un établissement public ou une fondation. Par convention du 17 novembre 1998, l'Etat confie la gestion de la Réserve Naturelle Marine de Cerbère-Banyuls au Département des Pyrénées-Orientales anciennement appelé Conseil Général des Pyrénées-Orientales (annexe 4).

#### 7.4.4. Autres dispositions juridiques

Décrire toute autre disposition juridique pertinente, telles que celles qui exigent l'établissement d'un plan de gestion, la mise en place d'un organisme local de participation toute autre mesure contraignante pour d'autres institutions ou secteurs économiques présents dans l'aire, l'allocation de ressources financières et d'instruments ou d'autres mesures importantes pour la protection et la gestion de l'aire ou de sa zone avoisinante.

La Réserve est dotée d'un comité consultatif présidé par le Préfet du département. Il réunit des représentants de collectivités territoriales concernées et d'usagers, des représentants d'administrations et d'établissements publics concernés et des représentants d'associations de protection de la nature et des personnalités scientifiques qualifiées. Les membres sont nommés pour une durée de 5 ans. Ce comité se réunit à minima une fois par an pour orienter et évaluer la mission menée par le gestionnaire en examinant le compte rendu d'activités et le budget annuel. Il a également pour rôle de donner son avis sur le fonctionnement et sur les conditions d'application des mesures prévues par le décret de création. Cette assemblée se prononce également sur la validation du plan de gestion et peut faire procéder à des études scientifiques en vue d'assurer la conservation, la protection ou l'amélioration du milieu naturel de la Réserve.

De plus, la Réserve a mis en place un Conseil Scientifique afin de bénéficier d'une expertise scientifique indépendante de l'organisme gestionnaire. Le Conseil Scientifique comprend 22 membres et se réunit trois à quatre fois par an. Il conseille le Comité Consultatif et l'organisme gestionnaire sur les programmes et suivis scientifiques opportuns en vue d'assurer la conservation et la protection du milieu naturel de la Réserve, incite des actions de recherche qui s'inscrivent dans les objectifs du plan de gestion, valide les protocoles des suivis scientifiques mis en place par la Réserve en amont de leur réalisation et évalue et valide les rapports des études réalisées par le gestionnaire, les équipes universitaires et les bureaux d'études.

Enfin, la réserve va terminer son troisième plan de gestion. Le premier (2001-2005) a permis la mise en œuvre d'actions de surveillance, de protection et de sensibilisation du milieu marin et le développement des études scientifiques sur son périmètre. Le second plan de gestion (2007-2011) a permis la poursuite de la mise en œuvre des actions de connaissance et de protection des habitats et des espèces des connaissances sur la biodiversité. Pour son troisième plan de gestion, la Réserve a été désignée comme site pilote au niveau des Réserves Naturelles de France. Cet outil de gestion se décline en 2 sections : le diagnostic de la Réserve puis sa gestion (objectifs, opérations).

## 8. GESTION

A travers les principes généraux, paragraphe (e) dans l'annexe I, les Parties conviennent que les sites inscrits sur la liste des ASPIM sont destinés à avoir une valeur d'exemple et de modèle pour la protection du patrimoine naturel de l'aire. A cet effet, les Parties assurent que les sites inclus dans la liste disposent d'un statut juridique, des mesures de protection, de méthodes et de moyens de gestion adéquats.

### **8.1. NIVEAU INSTITUTIONNEL**

#### 8.1.1. Autorité/Autorités responsable(s) de l'aire

Le Département des Pyrénées-Orientales est gestionnaire de la Réserve Naturelle Marine de Cerbère-Banyuls depuis 1977. En 1998, l'Etat a officialisé cette gestion par une convention.

#### 8.1.2. Autres participants à l'organe de gestion

Telles que les autres institutions nationales ou locales énoncées dans la section D6 de l'annexe I.

La Réserve bénéficie d'un comité consultatif et d'un conseil scientifique qui orientent le Département des Pyrénées-Orientales dans la gestion de l'AMP.

#### 8.1.3. Les participants à d'autres comités ou organes de participation

Tel que le comité scientifique ou un organisme de représentants du groupe local, des secteurs public, professionnel et non gouvernemental, comme dans les sections B4 – b et B4 – c l'annexe I.

Comme évoqué précédemment, la Réserve s'appuie sur un Comité Consultatif qui réunit des représentants de collectivités territoriales concernées et d'usagers, des représentants d'administrations et d'établissements publics concernés et des représentants d'associations de protection de la nature et des personnalités scientifiques qualifiées. Ce comité se réunit une fois par an pour orienter et évaluer la mission menée par le gestionnaire en examinant le compte rendu d'activités et le budget annuel. Il a également pour rôle de donner son avis sur le fonctionnement et sur les conditions d'application des mesures prévues par le décret de création.

Depuis 2000, un Conseil Scientifique a été créé afin que la Réserve bénéficie d'une expertise scientifique indépendante de l'organisme gestionnaire. Composé de 17 experts, il se réunit trois à quatre fois par an. Il conseille le Comité Consultatif et l'organisme gestionnaire sur les programmes et suivis scientifiques opportuns en vue d'assurer la conservation et la protection du milieu naturel de la Réserve, incite des actions de recherche qui s'inscrivent dans les objectifs du plan de gestion, valide les protocoles des suivis scientifiques mis en place par la Réserve en amont de leur réalisation et évalue et valide les rapports des études réalisées par le gestionnaire, les équipes universitaires et les bureaux d'études.

#### 8.1.4. Efficacité

Comme énoncé dans la section B4 de l'annexe I, évaluer comme très bas, bas, moyen, satisfaisant, très satisfaisant, et commenter si nécessaire les aspects suivants :

a) Efficacité de la coordination, si elle existe : La coordination apparaît comme satisfaisante. En plus des échanges réguliers avec le conseil scientifique de la Réserve et un bilan annuel effectué lors du comité consultatif, la Réserve réalise des réunions avec les différents usagers afin de présenter les actions réalisées. L'État intervient dans la gestion globale de l'espace en validant annuellement le programme d'actions. Le département gère au quotidien en apportant les moyens nécessaires au fonctionnement de la Réserve. Les communes concernées interviennent régulièrement afin de favoriser les échanges et apportant des solutions d'accueil (bureau, places au port...).

b) Qualité de l'engagement des communautés publiques et locales, des secteurs économiques et de la communauté scientifique : L'engagement des différents organismes est de très bonne qualité. Conscients de l'intérêt écologique et économique de la Réserve, ces différents acteurs montrent leur implication totale dans le fonctionnement de la Réserve.

## **8.2. PLAN DE GESTION (tel qu'énoncé dans D7 de l'annexe I)**

### **8.2.1. Plan de gestion**

Mentionner s'il existe un Plan de Gestion (PG) et dans ce cas, joindre le document en annexe. En l'absence d'un PG, mentionner si les principales dispositions régissant l'aire et les principales réglementations sont déjà en place et comment (D7 de l'annexe) et si l'aire aura un plan de gestion dans un délai de trois ans à partir de la date d'inclusion (D7 de l'annexe I).

La Réserve Naturelle Marine de Cerbère-Banyuls termine son troisième plan de gestion (2015-2019). Le premier plan de gestion (2001-2005) a permis la mise en œuvre d'actions de surveillance, de protection et de sensibilisation du milieu marin (sensibilisation du public, mise en place du sentier sous-marin, aménagement d'une zone de mouillage organisée, surveillance, police, etc.). Ce programme a également permis le développement des études scientifiques sur le périmètre de la Réserve (pêche professionnelle, corail rouge, mérus, etc.). Le second plan de gestion (2007-2011) a permis la poursuite de la mise en œuvre des actions de connaissance et de protection des habitats et des espèces : aménagement d'une nouvelle zone de mouillages organisée, information du public, etc.), et le développement des connaissances sur la biodiversité : mise en place de suivis à long terme (peuplements de poissons, substrats durs, substrats meubles, recensement de mérus, étude sur le corail rouge, etc.). Pour son troisième plan de gestion, la Réserve a été désignée « site pilote » au niveau des Réserves Naturelles de France. Conformément à la version 2006 du guide méthodologique des plans de gestion de Réserves naturelles, ce document présente deux sections :

- **Une section A intitulée « Diagnostic de la Réserve »** qui présente des modifications par rapport à la précédente version du plan de gestion. Cette mise à jour s'appuie essentiellement sur l'analyse écologique faite en 2011 dans le cadre de l'évaluation du plan de gestion 2007-2011.

- **Une section B et C intitulée « Gestion de la Réserve »**. Cette section présente les objectifs à long terme, les objectifs du plan et les opérations déclinées dans le plan de travail quinquennal. Les modifications concernent principalement une reformulation des objectifs du plan et une construction du plan adaptée à l'intégration dans un tableau de bord compatible avec l'Agence de Aires Marines Protégées (annexe 3). Un document annexe compile l'ensemble des textes réglementaires.

### **8.2.2. Formulation et approbation du plan**

Mentionner comment le PG a été formulé, ex : par une équipe d'experts et/ou en consultation et/ou en collaboration avec d'autres institutions ou acteurs concernés. Mentionner le statut juridique du PG, s'il est officialisé, et comment et s'il est lié à d'autres institutions et secteurs impliqués dans l'aire.

Au cours de l'année 2013, l'organisation de groupes de travail avec les différents acteurs de la Réserve (scientifiques, socio-économiques, etc.) a permis de recadrer la réflexion scientifique et de partir sur de nouvelles bases en s'appuyant sur des groupes de travail thématiques et sur le Conseil Scientifique de la Réserve. Au total, 11 réunions ont été programmées. Ces groupes de travail ont permis de réunir plus de 60 personnalités représentants les professionnels, les usagers et les experts scientifiques. Cette démarche de concertation a abouti à la rédaction de propositions qui se sont intégrées dans l'architecture du plan de gestion : définition des enjeux et des objectifs, habitats et espèces cibles de la gestion, propositions d'actions et d'opérations à conduire, avant de finaliser la rédaction du futur plan de gestion.

En décembre 2013, les propositions des groupes de travail ont été présentées et validées par le Conseil Scientifique de la Réserve puis ces résultats ont été présentés pour validation, lors du Comité Consultatif qui s'est tenu le 24 janvier 2014. Cette étape de validation du Comité Consultatif était essentielle avant de finaliser la rédaction du futur plan de gestion.



Lors de la réunion du vendredi 7 novembre 2014, le Comité Consultatif de la Réserve Marine a validé ce troisième plan de gestion 2015-2019. Cette validation est une étape importante pour la gestion de notre aire marine protégée. Une première phase avait déjà été franchie lors du conseil scientifique du 15 octobre 2014. Ce groupe d'experts, chargé d'apporter une expertise scientifique indépendante du gestionnaire, avait validé à l'unanimité ce plan de gestion.

### 8.2.3. Contenu et application du plan de gestion

Mentionner le degré de détail du PG en répondant par Oui ou par Non à la liste suivante des éléments potentiels du PG et évaluer le degré de mise en œuvre du PG en utilisant le score 0-1-2-3 dans la partie droite du tableau.

	Existant dans le PG	Degré d'application
Objectifs de gestion détaillés	OUI	3
Zonage	OUI	3
Règlement pour chaque zone	OUI	2
Organe de direction	OUI	2
Programmes de gestion comme :	OUI	2
Administration	OUI	2
Protection	OUI	2
Gestion des ressources naturelles	OUI	2
Tourisme et visites	OUI	2
Éducation et formation	OUI	3
Recherche et contrôle	OUI	2
Services et concessions	OUI	2
Activités de collecte de fonds	OUI	2
Révision périodique du PG	OUI	2

## **8.3 MESURES DE PROTECTION**

Conformément à l'Article 6 du Protocole, les Parties conviennent de prendre toutes les mesures de protection nécessaires pour la conservation de l'aire, et tout particulièrement le renforcement de l'application des autres Protocoles de la Convention, et par le règlement de toute autre activité susceptible de nuire à la valeur culturelle et naturelle de l'aire, telles que les activités économiques, récréatives ou de recherche. Quant à la section D2 de l'annexe I, les mesures de protection doivent être appropriées aux objectifs du site à court et à long termes et tenir compte en particulier des menaces.

### 8.3.1. Limites physiques et signalisation

Mentionner brièvement si la délimitation physique de l'aire et de son zonage est convenablement marquée/signalée sur le terrain, sur terre et en mer, et au niveau des accès.

La zone de protection renforcée, d'une superficie de 65 ha s'étend sur 1540 m de linéaire côtier. Cette zone est limitée à terre par deux marques jaunes qui ont été installées au lieu dit Caball Bernat (au Nord) et au niveau de la Punta d'en Came (au sud).

Les limites en mer de la Réserve sont matérialisées par quatre balises jaunes lumineuses de marque spéciale portant la mention « Réserve Marine de Cerbère-Banyuls ». Pour la zone de protection renforcée les deux balises portent la mention « Périmètre renforcé ».

Afin de conserver une signalisation de la Réserve de qualité, une convention a été passée avec le service des Phares et Balises afin d'assurer un entretien régulier de ce balisage.

### 8.3.2. Collaboration institutionnelle

Mentionner les différentes institutions ou organisations nationales et locales ayant des responsabilités juridiques ou intervenant dans la protection et la surveillance du territoire et des zones maritimes et toutes autres mesures ou mécanismes à travers lesquels la coordination est assurée.

En matière de surveillance, la Réserve collabore avec d'autres services comme le Parc Naturel Marin du Golfe du Lion, la Brigade Nautique Côtière de Saint-Cyprien, les services de la Gendarmerie Nationale, les Affaires Maritimes, les Polices Municipales de Banyuls et de Cerbère, l'Office National de la Chasse et de la Faune Sauvage et le Sémaphore du Cap Béar. Cette collaboration a permis, entre autre, de mettre en commun plusieurs outils de surveillance (moyens terrestres et embarcations) afin de réaliser des opérations de sensibilisation mais aussi de répression sur le littoral de la côte rocheuse. La présence de ces différents services vient compléter les périodes qui ne sont pas assurées par les agents de la Réserve, permettant ainsi de maintenir une continuité de la surveillance de cet espace protégé. Un échange très régulier avec le Tribunal de Grande Instance de Perpignan a été mis en place. Il permet de maintenir une cohérence dans les contrôles effectués en respectant les différentes orientations pénales validées par le procureur. Enfin, depuis 2018, la Réserve fait remonter tous les mois ses besoins de surveillance et de contrôle de l'environnement marin auprès du CACEM (Centre d'Appui au Contrôle pour l'Environnement Marin)

### 8.3.3. Surveillance

Indiquer l'adéquation des moyens de protection existants (humains et matériels) et de la capacité actuelle de surveiller l'exploitation des sols, de la mer et leurs accès.

La surveillance est une mission prioritaire de la Réserve. Elle est assurée aussi bien à terre qu'en mer. Elle s'effectue de jour, avec des plages horaires de présence de plus grande amplitude durant la saison estivale mais aussi de nuit avec des surveillances régulières tout au long de l'année et intensifiées en été. Pour cela, 4 agents commissionnés et assermentés sont affectés à ces opérations de surveillance. A cela s'ajoute un agent en renfort de terrain pour la période estivale. Afin d'effectuer ces patrouilles de surveillance, la Réserve est dotée de 2 embarcations : une embarcation d'intervention rapide et un navire équipé d'une cabine pour les jours de mauvais temps. Lors des patrouilles terrestres, la Réserve utilise un véhicule 4x4 capable d'accéder aux différents chemins longeant la Réserve. Chaque agent est équipé d'une paire de jumelles performantes. Lors des surveillances de nuit, les agents bénéficient de 2 jumelles à vision nocturne. Au total, plus de 1000 heures de surveillance sont réalisées chaque année représentant plus de 250 jours de présence sur le terrain. Les moyens dont dispose la Réserve sont donc en adéquation avec les objectifs fixés. Véritable cœur de nature du Parc Marin, elle bénéficie également d'un réseau de partenaires compétents pour ces missions de surveillance (Gendarmerie maritime, agents du Parc, Brigade Nautique...). Cette présence forte a permis de renforcer le respect de la réglementation.

### 8.3.4. Mise en application

Indiquer brièvement l'adéquation des pénalités actuelles et des pouvoirs pour une application efficace des règlements, si les sanctions actuelles sont suffisantes pour dissuader les infractions et si le personnel sur le terrain est habilité à pénaliser ces infractions.

Pour effectuer ses missions de surveillance, la Réserve bénéficie de 4 agents assermentés et commissionnés au titre de la protection de la faune et de la flore dans le département, des Réserves Naturelles dans le département, de la police de la navigation et du balisage dans la Réserve Naturelle Marine de Cerbère-Banyuls et des biens culturels maritimes dans la Réserve Naturelle Marine de Cerbère-Banyuls. Ce statut permet en cas de non respect des règles fixées par les différents textes réglementaires de dresser des procès verbaux avec saisie du matériel, d'utiliser des procédures simplifiées adaptées au milieu marin mais également des timbres amendes pour les infractions de la 1<sup>ère</sup> à la 4<sup>ème</sup> classe. Des rappels ont été mis en place afin de relever les infractions ayant un faible impact pour l'environnement. Un échange régulier avec le Tribunal de grande instance de Perpignan permet d'ajuster les orientations pénales fixées par le procureur. Ces outils et la présence sur le terrain permettent de limiter fortement les infractions.

## 9. RESSOURCES DISPONIBLES

### 9.1. RESSOURCES HUMAINES (Art. 7.2. f du Protocole)

#### 9.1.1. Personnel disponible

Évaluer l'adéquation des ressources humaines à la disposition de l'organe de gestion, le nombre des agents et le niveau de formation au siège et sur le terrain. Indiquer s'il y a des programmes de formation pour le personnel.

Le personnel impliqué dans la gestion courante de la Réserve est le suivant :

- 4 agents salariés affectés à la Réserve :

- . 1 conservateur, 100 % ;
- . 1 responsable scientifique et usages, 100% ;
- . 1 responsable pédagogique, 100% ;
- . 1 responsable technique, 100 %.

2 agents salariés du service environnement intervenant en appui de la Réserve :

- . 1 personne affectée au suivi budgétaire, 50 % ;
- . 1 secrétaire, 10%.

- 6 agents salariés du Département recrutés pour la saison estivale à la Réserve :

- . 1 contractuel affecté à la surveillance du site
- . 1 contractuel, chargé de la surveillance et de la sensibilisation au sentier sous (8 mois)
- . 3 contractuels chargés de l'accueil au sentier sous-marin ;
- . 1 contractuel affecté au point information et à la surveillance du site

Compte tenu de la surface de notre espace protégé, les agents mis à disposition par le gestionnaire pour assurer la gestion courante sont en adéquation avec les objectifs fixés par notre plan de gestion.

#### 9.1.2. Personnel de terrain permanent

Répondre par Oui ou par Non concernant l'existence actuelle des catégories du personnel de terrain suivantes. Si OUI, mentionner le nombre de personnes soit permanentes soit vacataires dans cette catégorie, et évaluer par un score de 1-2-3 (1 est bas, 3 est élevé) l'adéquation du niveau de formation.

	OUI/NON	NOMBRE Permanents/ Vacataires	ADEQUATION DU NIVEAU DE FORMATION
Administrateur de terrain	NON		
Experts de terrain (suivi scientifique)	OUI	1	3
Techniciens de terrain (maintenance, etc.)	OUI	2	3
Gardes, dont en mer	OUI	1	3
Guides	NON		
Autres	NON		

### 9.1.3. Support supplémentaire

Décrire brièvement si l'aire bénéficie actuellement d'autres ressources humaines de soutien à ses objectifs, de la part d'institutions nationales ou locales, programmes de volontariat, ONG, organisations académiques ou internationales. Mentionner s'il existe des changements ou des perspectives de changement significatives pour l'avenir proche.

La Réserve étant gérée par le Département des Pyrénées-Orientales, elle bénéficie d'un soutien non négligeable sur certaines actions :

#### Agents salariés du Département intervenant régulièrement à la Réserve :

- 1 Agent d'entretien, 20% ;
- Des agents techniques (électriciens, menuisiers, plombiers, mécaniciens, couturières, maçons, jardiniers) : 70 jours d'interventions environ par an ;
- Des agents de la Direction Informatique (Imprimerie, PAO, téléphonie, matériels et réseaux...) : 20 jours d'interventions diverses.

De plus, lors de certains suivis scientifiques ou missions de surveillance, la réserve bénéficie d'universitaire ou laboratoire de recherche, de stagiaires et des agents du Parc Naturel Marin du Golfe du Lion.

## **9.2. RESSOURCES FINANCIÈRES ET ÉQUIPEMENTS**

Dans l'article 7 du Protocole, les Parties conviennent d'adopter des mesures ou mécanismes assurant le financement des aires spécialement protégées (Art. 7.2. d) et la mise en place d'une infrastructure appropriée (Art. 7.2. f). Les Principes généraux paragraphe "e" de l'annexe I appellent les Parties à doter les aires des moyens de gestion adéquats.

### 9.2.1. Ressources financières actuelles

Noter si le financement de base est assuré : financement du personnel essentiel, mesures de protection et d'information. Qui fournit ce financement ? Evaluer brièvement le degré d'adéquation des moyens financiers actuels pour l'aire - bas, modéré, satisfaisant -, ex : la mise en œuvre du plan de gestion, comprenant la protection, l'information, l'éducation, la formation et la recherche.

Le financement de la Réserve apparaît comme satisfaisant pour mener à bien les objectifs du plan de gestion. Du fait de son statut de Réserve Nationale, les sources de financement proviennent de différents organismes comme l'Etat (DREAL), qui participe à hauteur 49 % mais également du Département, gestionnaire de l'espace pour 49% environ. La Région Occitanie participe à hauteur de 1% du budget. D'autres sources de financement sont recherchées auprès de l'agence de l'eau pour la réalisation de certaines opérations d'investissement.

### 9.2.2. Sources de financement supplémentaires ou attendues

Décrire brièvement toute source de financement alternative courante ou en projet et les perspectives de financement à long terme provenant de sources nationales ou autres.

Les futures sources de financement pourraient provenir de l'agence de l'eau pour la réalisation de certains suivis mais également de l'Europe sur des projets de plus grande envergure. La région Occitanie sera également sollicitée pour apporter un surplus de financement.

### 9.2.3. Infrastructure de base et équipement

Répondre par Oui ou par Non aux questions suivantes, et si OUI, évaluer avec un score de 1-2-3 (1- bas, 3- élevé), l'adéquation de l'infrastructure de base et de l'équipement.

	OUI/NON	ADEQUATION
Bureau et/ou laboratoires sur le terrain	OUI	3
Signalisation sur les principaux accès	OUI	3
Postes de garde sur les principaux accès	NON	1
Bureau d'information des visiteurs	OUI	3
Parcours sans guides avec signalisation	OUI	3
Véhicules terrestres	OUI	3
Véhicules marins	OUI	3
Radio et communications	OUI	3
Matériel de sensibilisation	OUI	3
Capacité d'intervention en cas d'urgence	OUI	3
Commentaires sur les infrastructures de base et équipement : Points information, bureaux administratifs, sentier sous marin, bateaux, véhicules terrestres....		

## **9.3. INFORMATION ET CONNAISSANCES**

Dans la section D3 de l'annexe I, les Parties conviennent que la planification, la protection et la gestion d'une ASPIM doivent être basées sur une connaissance adéquate des éléments de l'environnement naturel et des facteurs socio-économiques et culturels qui caractérisent chaque aire. En cas de manque de connaissances, l'aire candidate au titre d'ASPIM doit avoir un programme pour la collecte des données et des informations non-disponibles.

### 9.3.1. État des connaissances

a) Évaluer le niveau de l'état des connaissances. 2 sur 3

b) Décrire brièvement le degré de connaissance de l'aire, tenant au moins compte des cartes spécifiques, des principaux processus écologiques, de la répartition des habitats, de l'inventaire des espèces et des facteurs socio-économiques, tels que la pêche artisanale.

En application du plan de gestion de la Réserve et ses enjeux 1 à 7 correspondant à la conservation du patrimoine naturel, les habitats naturels de la Réserve ont été cartographiés en 1999 dans le cadre de l'élaboration du premier plan de gestion. Cette cartographie a été précisée en 2003, 2008, 2014 et 2018. Sur son périmètre, les connaissances sur la répartition des habitats sont très bonnes, notamment pour la tranche bathymétrique comprise entre -8 m et -60 m. Aujourd'hui, la Réserve bénéficie d'une cartographie très précise grâce aux différentes campagnes réalisées par imagerie acoustique permettant d'obtenir une résolution spatiale pouvant aller jusqu'à 10 cm en imagerie. Lors des surveillances et des retours des usagers, les différentes activités ont été intégrées sur cette cartographie (plongée, pêche de loisir et pêche professionnelle ...). Enfin un inventaire sur la faune et la flore prévu par le plan de gestion est régulièrement réalisé (poissons, corail, herbiers). Ces différentes observations permettent d'améliorer nos connaissances et prendre rapidement des mesures de protection adaptées (Annexe 1).

Des suivis socio-économiques sont régulièrement mis en place par l'équipe de la réserve ou grâce à des partenariats scientifiques.

La réserve marine bénéficie de plus de 44 ans d'existence, et de ce fait, a pu réaliser de nombreux suivis afin d'améliorer les connaissances et la gestion de son périmètre.

### 9.3.2. Collecte des données

Décrire et évaluer l'adéquation de tout programme et de toutes les activités pour la collecte de données dans l'aire.

Depuis le 1<sup>er</sup> janvier 2010, la Réserve effectue un suivi sur l'évaluation de la fréquentation du site au cours d'un cycle annuel complet afin de mettre en évidence la variabilité de la fréquentation et des usages en fonction de la saison, des conditions météorologiques ou de la tranche horaire. Les objectifs des comptages réalisés tout au long de l'année par les agents de la Réserve sont les suivants : évaluer la fréquentation des différentes activités dans la Réserve (plongée sous-marine, pêche professionnelle et de loisir, snorkellers, baigneurs...), mesurer l'évolution temporelle et la répartition spatiale des activités et mettre en place des mesures de gestion adaptées.

Lors de ces comptages, 4 zones sont suivies. À l'intérieur de chacune de ces zones, un découpage secondaire a été réalisé afin de distinguer les activités qui se pratiquent depuis le bord, les activités embarquées qui se pratiquent à proximité de la côte et les activités embarquées qui se pratiquent au large. Les agents de la Réserve utilisent une application développée sur tablette tactile par le service informatique du Département. Elle est régulièrement mise à jour.

Aujourd'hui, la Réserve Marine bénéficie d'une bonne connaissance sur les différentes activités.

### 9.3.3. Programme de surveillance continue

La section D8 de l'annexe I stipule que pour être inscrite sur la liste des ASPIM, l'aire doit être dotée d'un programme de surveillance continue d'un certain nombre de paramètres importants, pour permettre l'évaluation de l'évolution de la situation dans cette aire, et également de l'efficacité des mesures de protection et de gestion et si nécessaire des ajustements requis. Les indicateurs peuvent par exemple fournir des informations sur l'état des espèces, la condition de l'écosystème, les changements de l'aménagement du territoire, l'exploitation des ressources naturelles (sable, eau, gibier, poisson), visites et l'adhésion aux dispositions du plan de gestion, etc. ...

a) Y-a-t-il un programme de surveillance continue ?

b) Si Non, est-il prévu de le mettre en place et quand ?

c) Si Oui, évaluer (faible, moyen, satisfaisant)  
L'adéquation et le niveau actuel de développement.

d) Si Oui, qui réalise(ent) ce programme ?

Ce programme est réalisé en interne en application du plan de gestion 2015-2019 de la Réserve Naturelle Marine de Cerbère-Banyuls. Des partenariats scientifiques ont également été mis en place afin de développer des routines dans les analyses de données.

e) Si Oui, décrire brièvement comment ce programme sera-t-il utilisé lors de la révision du plan de gestion.

Désigné site pilote par Réserves Naturelles de France, le dernier plan de gestion de la Réserve a retenu les 4 enjeux suivants : la conservation du patrimoine naturel, la connaissance du patrimoine naturel et des changements environnementaux, la connaissance des usages et la surveillance du site et les enjeux relatifs à l'accueil du public et aux actions de sensibilisation et d'éducation à l'environnement. Les objectifs à long terme se déclinent en objectifs du plan ou objectifs opérationnels puis en opérations à réaliser. Chaque opération est associée à un niveau de priorité. Lors de la révision du plan de gestion, dans un premier temps, une évaluation sera réalisée sur la base d'indicateurs fixés en amont afin de valider ou pas l'atteinte des objectifs. C'est en fonction de cette évaluation que le prochain plan de gestion sera construit. 2020 sera donc réservé à l'évaluation de ce plan de gestion 2015-2019 tandis que 2021 sera consacré à la rédaction du nouveau plan de gestion de la Réserve qui devrait être mis en place pour une durée de 10 ans.

## 10. Autres informations, s'il y a lieu.

En fin d'année 2018, la Réserve Naturelle Marine a bénéficié de deux reconnaissances mondiales. D'une part, l'organisme « Marine Conservation Institute » a lancé un système mondial de protection des océans appelé « GLORES » dans l'objectif de protéger 30% des océans d'ici 2030 et améliorer ainsi la protection marine à l'échelle mondiale en incitant à la création de zones protégées. Le Marine Conservation Institute a attribué le statut de refuge mondial pour la mer à la Réserve pour sa protection active des habitats, le maintien de la biodiversité marine et l'augmentation de ses populations. Rejoindre le groupe prestigieux des dix aires marines protégées qui composent ce système mondial de protection des océans signifie que la Réserve est conforme aux normes scientifiques les plus strictes en matière de protection de la biodiversité et aux meilleures pratiques en matière de gestion. Première et seule Aire Marine Protégée de France à bénéficier de cette distinction, ce prix célèbre l'excellence en matière de conservation marine.

D'autre part, la Liste Verte des Aires Protégées de l'UICN est un système de labellisation de la qualité de la gestion et de la gouvernance des aires protégées, sur la base de critères définis à l'échelle mondiale. Elle vise à reconnaître, encourager et célébrer les aires protégées qui réalisent une conservation efficace de la nature, des écosystèmes associés et des valeurs culturelles. Début 2018, le secrétariat international de l'UICN a engagé un cycle de réinscription des sites labellisés en 2014 dont la Réserve faisait partie. À la suite de l'évaluation nationale réalisée en juin, le dossier de la Réserve a été examiné par des consultants mandatés par le Secrétariat international de l'UICN qui ont pu vérifier la complétude des informations fournies et s'assurer de la conformité du processus d'évaluation nationale avec le règlement international. Lauréate pour la seconde fois, cette nouvelle distinction reconnaît les actions menées par la Réserve et le Département des Pyrénées-Orientales, son gestionnaire. Elle consacre la qualité de sa gestion ainsi que l'importance accordée à la participation des acteurs locaux, ce dernier critère étant essentiel pour pouvoir figurer sur la liste verte. Ces deux distinctions confirment tous les efforts fournis et les résultats obtenus en faveur de la conservation de la nature depuis plus de 40 ans.

**11. COORDONNEES** : (Nom(s), fonction(s) et adresse(s) de la/des personne(s) responsable(s) de la proposition et du rapport)

Département des Pyrénées-Orientales  
Réserve Naturelle Marine de Cerbère-Banyuls  
Frédéric CADENE  
Conservateur de la Réserve Naturelle  
5 Rue Roger David  
66650 BANYUS SUR MER

**12. SIGNATURE(S) AU NOM DE L'ETAT/DES ETATS MEMBRE(S) SOUMETTANT LA CANDIDATURE**

Département des Pyrénées-Orientales, gestionnaire de la Réserve Naturelle Marine de Cerbère-Banyuls, représenté par Hermeline MALHERBE, Présidente du Département des Pyrénées-Orientales.

Pour la Présidente et par délégation  
Le Directeur Eau et Environnement

Jean-Luc STRAC

**13. DATE** Perpignan le 12 mars 2019



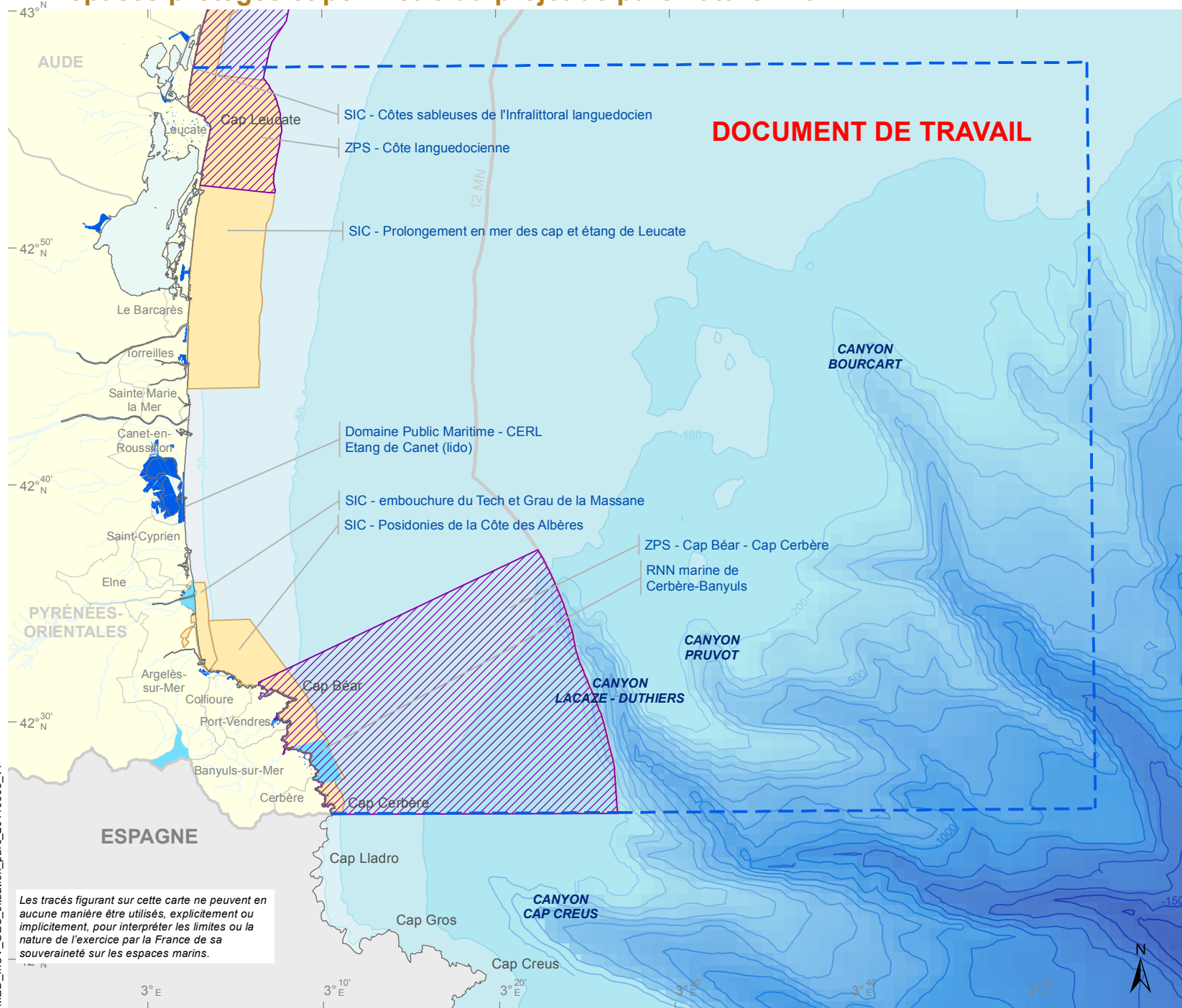


# MISSION COTE VERMEILLE

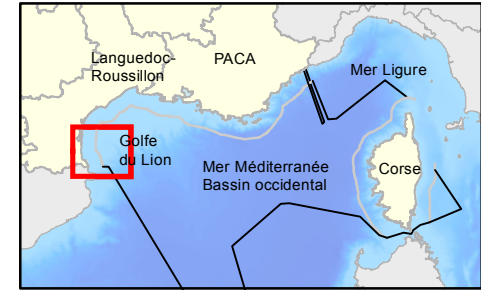
## Espaces protégés et périmètre du projet de parc naturel marin

EDITEE LE :

05/05/2011



### DOCUMENT DE TRAVAIL



Périmètre du projet de parc naturel marin

Réserve naturelle nationale (RNN)

Site du conservatoire du Littoral (CERL)

**Site NATURA 2000 majoritairement marin:**

Directive Habitats-Faune-Flore (SIC)

Directive Oiseaux (ZPS)

**Délimitations maritimes françaises \***

Limite de la mer territoriale (12 MN)

0 4 8 kilomètres

0 3 milles nautiques

Sources des données :

- Espaces protégés : INPN - MNHN, PREMAR, DREAL, 09/2010
- Site du Conservatoire : CERL, 07/2010
- Périmètre de projet de parc : AAMP, 2010
- Délimitations maritimes françaises : SHOM, 2010
- \* (ne pas utiliser pour la navigation)
- Trait de côte : SHOM/IGN Histolitt (TCH) V2.0 ; EEA
- Découpages terrestres administratifs, Cours d'eau : IGN
- Bathymétrie : GEBCO-2008 - British Oceanographic Data Centre; MediMap Group, Loubrieu B., Mascle J. et al. (2005) Morpho-bathymetry of the Mediterranean Sea, CIESM / Ifremer special publication, Atlases and Maps, two maps at 1/2 000 000.

Système de coordonnées : Lambert 93 / RGF93 / IAG GRS 1980

Les tracés figurant sur cette carte ne peuvent en aucune manière être utilisés, explicitement ou implicitement, pour interpréter les limites ou la nature de l'exercice par la France de sa souveraineté sur les espaces marins.



MED\_mCV\_GES\_situation\_parc\_20110505\_v1

**ANNEX II:**

**Presentation report of the “Egadi Islands Marine Protected Area”  
proposed by Italy for inclusion in the SPAMI List**

*The annexes to the Presentation report of “Egadi Islands Marine Protected Area” are  
available here:*

[http://rac-spa.org/nfp14/documents/spamis/annex\\_to\\_the\\_af\\_italy\\_egadi\\_islands.rar](http://rac-spa.org/nfp14/documents/spamis/annex_to_the_af_italy_egadi_islands.rar)



**ANNOTATED FORMAT FOR THE PRESENTATION  
REPORTS FOR THE AREAS PROPOSED  
FOR INCLUSION IN THE SPAMI LIST**



## **OBJECTIVE**

The objective of this Annotated Format is to guide the Contracting Parties in producing reports of comparable contents, including the information necessary for the adequate evaluation of the conformity of the proposed site with the criteria set out in the Protocol and in its Annex I (Common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List).

## **CONTENTS**

The presentation report shall include the following main information on: (i) identification of the proposed protected area (ii) site description (iii) its Mediterranean importance (iv) the activities in and around the area and their impacts (v) legal status (vi) management measures (vii) human and financial resources available for the management and the protection of the site.

## **SUBMISSION OF REPORTS**

The reports should be submitted to the RAC/SPA two months before the meeting of National Focal Points for SPA in English or in French.

Dossiers should be compiled on A4 paper (210 mm x 297 mm), with maps and plans annexed on paper with a maximum size of an A3 paper (297 mm x 420 mm). Contracting Parties are also encouraged to submit the full text of the proposal in electronic form.

The requested annexes should be submitted on paper and, if possible, also in electronic form. They are the following:

- Copies of legal texts
- Copies of planning and management documents
- Maps: administrative boundaries, zoning, land tenure, land use, and distribution of habitats and species, as appropriate
- Existing inventories of plant and fauna species
- Photographs, slides, films/videos, CD-ROMs
- List of publications and copies of the main ones concerning the site

**N.B.:** All the following sections have to be in the report submitted, even those sections or elements that do not apply to the proposed area. Where that is the case, please put “not applicable to the proposed area”.

**1. AREA IDENTIFICATION****1.1. COUNTRY/COUNTRIES** (in the case of transboundary areas)

ITALY

**1.2. ADMINISTRATIVE PROVINCE OR REGION**

PROVINCE OF TRAPANI (SICILY)

**1.3. NAME OF THE AREA**

EGADI ISLANDS MARINE PROTECTED AREA

**1.4. GEOGRAPHIC LOCATION**

Describe its geographical boundaries, e.g. rivers, roads, geographical or administrative boundaries (do not describe the co-ordinates here; please make a separate annex with a map and a description of geographical co-ordinates as stated in the legal declaration of the area).

The archipelago of Egadi Islands is located off the northwestern coast of Sicily, in the Tyrrhenian Sea. It is the largest marine coastal protected area in the Mediterranean Sea, with a surface of 53,992 hectares. It includes the three islands of Favignana, Levanzo and Marettimo and the islets of Formica and Maraone. The main island of Favignana is set about 7 km away from Trapani, while Marettimo is the farthest, at 38 km from the coast. The reserve is entirely located in the province of Trapani, within the Italian territorial waters.

**1.5. SURFACE OF THE AREA** (total)

539,92 km <sup>2</sup> (in national unit)	53.992,00 (in ha)
---	-------------------

**1.6. LENGTH OF THE MAIN COAST** (Km)

74,00 km

## 2. EXECUTIVE SUMMARY (maximum 3 pages)

The Egadi Islands Marine Protected Area was established in 1991 by the Italian Ministry of Environment, from 2001 is managed by the Municipality of Favignana. The extension of MPA is ≈54,000ha and includes the islands of Favignana, Levanzo and Marettimo, and the two islets of Maraone and Formica.

The coastal geomorphology is characterized by carbonatic rocky shore alternating by high cliffs, small sandy or pebbles beaches and many submerged or semi-submerged caves. The MPA has a high naturalistic value and hosts several important habitats both marine and terrestrial, such as the largest *Posidonia oceanica* meadow in the Mediterranean Sea or the vermetid's "trottoirs", an association among the mollusc *Dendropoma* and some calcareous algae. The presence of several rare or endangered marine species as monk seal *Monachus monachus*, sea turtle *Caretta caretta*, colony of bottlenose dolphins *Tursiops truncatus* and striped dolphins *Stenella coeruleoalba*, ribbed limpet *Patella ferruginea*, noble pen shell *Pinna nobilis*, dusky grouper *Ephinephelus marginata*, bluefin tuna *Thunnus thynnus*, characterizes the rich biodiversity associated to the well preserved MPA's habitats. In addition, the coastal cliffs host a rare colony of storm petrels *Hydrobates pelagicus*.

According to ISTAT (Italian National Institute of Statistics) and Municipality of Favignana official data, at 01 January 2018 the population amount to 4,351 inhabitants, most of them living in the island of Favignana.

According to ISTAT (2011) 323 companies are active in the area, many of which related to tourism (72 accommodation/restoration companies and 45 rental/travel/services agencies).

Professional fishing is the main commercial activity of the local economy: 165 boats are authorized to fish within the MPA, 37 of which are from Egadi Islands, and the others belong to fleet of Trapani (data at 2017).

Professional and non-professional fishing are regulated by laws, but due to the great extension of the MPA, surveillance and control is not simple. The other main commercial activities of the area (data at 2017) are limited and certificated by the MPA that release authorizations and touristic quality brands: recreational fishing (about 1600 authorizations), fishing cruise (7 authorizations), scuba diving centres (8 authorizations), marine cruise (63 authorizations), marine transport (10 authorizations), anchorage (about 2500 authorizations), boat renting and leasing services (about 250 authorizations).

Biodiversity is threatened by most of common human activities, with a highest peak during the touristic season (June/September). Cruise boats and anchoring are probably the main threats to marine habitats and biodiversity.

The presence of several endemic species of the Mediterranean makes the MPA attractive and of interest for research activities. The area hosts also prehistorical and historical archaeological settlements of significant interest.

The Egadi Islands are a Site of Community Interest (SCI), ITA010024, "*Fondali dell'arcipelago Isole Egadi*". From December 2016, Sicilian Government appointed the MPA as the SCI management Authority.

In 2010 the application of a new MPA management plan and of the executive regulation divided the stakeholder's opinions. Some professional fishermen were against the new rules. Several collaborative initiatives taken by the MPA mitigated the problems.

The coastal shore and its typical landscape, especially in the eastern coast of Favignana, is characterized by the presence of caves and tunnels, due also to ancient mining activities. Nowadays, the abandoned caves have now wonderful hypogeum gardens colonized by typical Mediterranean flora that make them particularly attractive to the visitors.

The coastline of the three islands are characterized by several submerged or semi-submerged caves, one of the best known is "Grotta del Genovese", in Levanzo, adorned by prehistoric paintings depicting hunting and fishing scenes.

In Favignana, the ancient tuna farm "Tonnara Florio", from long time fallen into disuse, was renewed and today host an important Historical Museum, nowadays the most important tourist attraction of the area.



The MPA zoning scheme is based on 4 different levels: A Zone (integral protection) 1.067ha; B Zone (general protection) 2.865ha; C Zone (partial protection) 21.962ha; D Zone (buffer protection zone) 28.098ha.

The Municipality of Egadi Islands (in Favignana) is in charge of the MPA management so the Mayor of Egadi Islands is the President of the MPA. The Mayor, together with the municipal bodies, it is responsible for the management of the MPA. The Director, appointed by Italian Ministry of the Environment, is in charge of the ordinary administrative and technical management of the MPA. Control activities at sea are in charge to the Italian Coast guard and to other institutional bodies.

The MPA staff consist of 15 annual employees, supported by seasonal staff that involve university and research institutes internships (such as CoNISMa, ISPRA, Enea, CNR, etc.), voluntary from environmental associations (such as WWF, Marevivo, etc.). This people, about 25/30 unity, help the annual staff to manage the mainly MPA's activities, such as the "Sea Turtle rescue centre" in Favignana, the "Monk seal observatory" in Marettimo and several others projects developed by the authority during the year. The MPA take care of training all the staff, in order to create a well prepared and expert staff. Some services such as management of moorings areas, info points and sea surveillance are given in management to external cooperatives that support the MPA's activities.

Despite the large area cover by the MPA, the public found received by the institutional bodies has been drastically reduced, to overcome to this lack on funding, the MPA supplements its budget by release of authorizations, entrance fees, penalties and voluntary donations. MPA is also partner of private companies that sponsor activities and projects, such as the "Sea Turtle rescue centre" and the anti-trawling bollards, financed by the "Rio Mare" company.

MPA is working on the implementation of online accessibility of its information by stakeholders, through the development of a GIS platform, which includes information on zoning, protected species, sensitive habitats, professional fishing areas and diving, bathing and mooring areas; the same platform is conceived to host data collected on the presence of alien species or jellyfishes and other useful management information.

### 3. SITE DESCRIPTION

#### 3.1. TYPOLOGY OF THE SITE

3.1.1. Terrestrial surface, excluding wetlands(ha):	37.45 km <sup>2</sup>
3.1.2. Wetland surface (ha):	ND
3.1.3. Marine surface (Sq. Km): Marine internal waters	ND
Territorial sea	502.47 km <sup>2</sup>
High sea	ND

#### 3.2. MAIN PHYSICAL FEATURES

##### 3.2.1. Geology/Geomorphology

Give a brief description of: (i) geological aspects (lithologic and tectonics); (ii) processes of sedimentation and erosion observable in the area; (iii) coastal geomorphology and (iv) island system. Indicate bibliographical sources.

The NW sector of Sicily and the Archipelago of Egadi islands constitute the emerged western edge of the Sicilian–Maghrebian Chain, which originated from the deformation of the Meso-Cenozoic Northern African continental margin. The geological setting of the area is characterized by the overthrusting of tectonic units, referable to the Panormid carbonate platform and its margins, onto units belonging to other palaeogeographic domains.

The morphology of the continental shelf presents the alternation of regular sectors, covered by sandy or pebble sediments, with more rugged areas resulting from bedrock outcrops and numerous submarine incisions. Around the main islands, at 30-40m depth, the rocky outcrops alternate with medium to coarse grain sediments (sands and gravels), observed mainly in the bays and inlets.

Quaternary deposits occur in the lowland areas and along the coast; they are represented by bioclastic calcarenites, sandy conglomerates, lacustrine deposits of sands and gravels, and Aeolian calcarenites. In particular, calcarenites deposits are present in most of the seabeds extending between the islands of Favignana and Levanzo.

Steep cliffs up to 20 metres height characterize the coastline. Conversely, only two small sandy beaches are present in Favignana.

The coastline of the archipelago is affected by a strong erosive phenomenon due to both the nature of the soil and the action of the sea storms. The erosion operates a continuous transformation of the landscape and it is particularly visible in the island of Favignana.

Catalano, R, D'Argenio, B, 1982. Schema geologico della Sicilia. In: Catalano, R, D'Argenio, B, (Eds.), Guida alla geologia della Sicilia occidentale. Guide Geologiche Regionali, Memorie Società Geologica Italiana, vol. 24, pp. 9–41.

Agnesi V, Macaluso T, Orrù P, Ulzega A, 1993. Paleogeografia dell'arcipelago delle Egadi nel Pleistocene Sup.-Olocene. Naturalista Siciliano, S.IV,XVII (1-2): 1-22.

3.2.2. Other interesting physical features: Such as hydrodynamics, volcanic formations, caves, underwater formations, etc.

The whole coast is towered by sheer cliffs dropping down to the sea. The coast of Marettimo is interspersed with rock crevices and beautiful caves full of stalactites. Caves are also present in the other two islands. The best known is the “Genovese’s cave”, one of the most important archaeological sites in Italy, with its carvings and paintings dating back to the Upper Palaeolithic period (9680 BC).

The MPA includes the largest and best preserved *Posidonia oceanica* meadow of the Mediterranean Sea (about 12.536 hectares). On the coast are abundant the vermetid “trottoirs”, formed by the association of the *Dendropoma* mollusk shells and the calcareous algae.

The island of Marettimo is separated from Favignana and Levanzo by a channel more than 350m deep, already present in the Pleistocene and during the periods of maximum eustatic sea level lowering in the Pliocene, thus always maintaining Marettimo isolated from the mainland.

The three main islands have remarkable elevations. Favignana presents a massive mountain culminating in the summit of Mount St. Catherine (310m). Levanzo, the smallest of the three islands, is entirely mountainous, reaching its highest peak of 278m with Pizzo del Monaco, and is thoroughly characterized by inaccessible coasts. Marettimo, geologically different from the other two islands, looks like a rocky cathedral reaching its summit of 686m with Monte Falcone.

3.2.3. Length of beaches (in Km), including islands:

a) Length of sandy beaches:

1.288 km

b) Length of pebble or stony beaches:

0.585 km

c) Length, height and depth of active sand-dunes:

ND

### 3.3. FRESHWATER INPUTS

3.3.1. Mean annual precipitation (in mm)

37.5 mm

3.3.2. Main water courses (permanent and seasonal)

not applicable to the proposed area

3.3.3. Estuarine areas: Existence and brief description

not applicable to the proposed area

3.3.4. Freshwater springs: Existence and brief description, including marine offsprings

not applicable to the proposed area

### 3.4. BIOLOGICAL FEATURES (B2, Annex I)

3.4.1. Habitats: A brief description of dominant marine and terrestrial habitats, on the basis of the habitat classifications adopted within the framework of MAP (and their coverage in ha)

- III.6.1. Biocenosis of infralittoral algae (1.841ha);
- III.6.1.3 Vermetid reefs (0.65ha)
- III.5. *Posidonia oceanica* meadows (12.536 ha) (AA.VV., (2005). Studio Geologico, Bionomico ed Ecologico di aree marine protette dell'Italia meridionale. Progetto Gebec-Sud, Cluster 10 – Ambiente Marino, MIUR – CIPE, Dipartimento di Geologia e Geodesia, Università di Palermo: 105 pp.)
- III.3.2. Biocenosis of coarse sands and fine gravels under the influence of bottom currents (3.871 ha);
- IV.2.2. Biocenosis of the coastal detritic bottom (344 ha);
- IV.3.1. Coralligenous (102 ha).

*Posidonia* meadows are the most representative habitat distributed mainly on the eastern side of Favignana Island. Vermetid reefs, despite their total small coverage, have a great importance as rare ecosystem and for their high degree of naturalness. This habitat (code A2.7x “Biogenic habitats of Mediterranean mediolittoral rock”) is classified as “vulnerable” by the European Red List of Habitats – Marine.

The MPA coasts are thoroughly dominated by the typical rocky bottom photophilic assemblages, as over 90% of the coastline is characterized by rocks.

From the depth of 20 m the precoralligenous and the coralligenous assemblages rocky seabed in areas.

## 3.4.2. List of regionally important species (flora and fauna) (B-2a, Annex I)

List here ONLY those species protected by international agreements, particularly those marine species included in Annex II of the Protocol, which are present in the area. Any other species may be listed if it is clearly considered of regional importance given its high representation in the area. Display the species list under the headings Marine Plants, Terrestrial Plants, Marine Invertebrates, Fish, Amphibians and Reptiles, Birds, and Mammals. For each species state:

- its relative abundance as Common (C), Uncommon (U) or Occasional (O),
- Its global status as rare (r), endemic (e) and/or threatened (t), and
- its status as an important resident population (R), or important for its breeding (B), feeding (F), wintering (W) or migratory passage (M)

SPECIES	Rel. Abundance	Global STATUS	Local STATUS
	(C) (U) (O)	(r) (e) (t)	(R) (B) (F) (W) (M)
Examples: BIRDS			
<i>Pelecanus onocrotalus</i>	(C)	(e) (t)	(R)
<i>Falco eleonora</i>	(U)	(e) (t)	(B)
<b>MAMMALS</b>			
<i>Tursiops truncatus</i>	(C)	(t)	(F)(R)
<b>BIRDS</b>			
<i>Hydrobates pelagicus</i>	(O)	(t)	(F)
<b>REPTILES</b>			
<i>Caretta caretta</i>	(C)	(t)	(F)(R)
<b>MARINE PLANTS</b>			
<i>Posidonia oceanica</i>	(C)		(R)
<i>Cymodocea nodosa</i>	(C)		(R)
<b>MARINE ALGAE</b>			
<i>Cystoseira amentacea</i>	(C)		(R)
<i>Cystoseira spinosa</i>	(C)		(R)
<i>Lithophyllum byssoides</i>	(U)	(t)	(R)
<b>MARINE INVERTEBRATES</b>			
<i>Dendropoma petraeum</i>	(C)		(R)
<i>Erosaria spurca</i>	(U)		(R)
<i>Luria lurida</i>	(C)		(R)
<i>Pinna nobilis</i>	(C)		(R)
<i>Pinna rudis</i>	(U)		(R)
<i>Patella ferruginea</i>	(U)		(R)
<i>Asterina pancerii</i>	(U)		(R)
<i>Ophidiaster ophidianus</i>	(C)		(R)
<i>Astroides calycularis</i>	(C)	(t)	(R)
<i>Paramuricea clavata</i>	(C)	(t)	(R)

<i>Eunicella singularis</i>	(U)	(t)	(R)
<i>Eunicella cavolinii</i>	(C)	(t)	(R)
<i>Savalia savaglia</i>	(U)	(t)	(R)
<i>Anthipatella subpinnata</i>	(U)	(t)	(R)
<i>Cladocora caespitosa</i>	(C)	(t)	(R)
<i>Madrepora oculata</i>	(U)	(t)	(R)
<i>Palinurus elephas</i>	(U)		(R)
<i>Scyllarides latus</i>	(U)		(R)
<i>Centrostephanus longispinus</i>	(U)	(t)	(R)
<i>Paracentrotus lividus</i>	(C)		(R)
<i>Epinephelus marginatus</i>	(C)	(t)	(R)
<i>Sciaena umbra</i>	(C)	(t)	(R)

### 3.4.3. Flora: Describe in a few sentences the main plant assemblages significant in the area.

The seabed of Favignana and Levanzo present the typical biological characteristics of the infralittoral zone, dominated by brown algae and photophilic algae, up to 10-12m depth, and by the dense *Posidonia oceanica* meadows. The MPA hosts the largest *Posidonia* meadow of the Mediterranean Sea. The seabed of Marettimo presents in addition a large circalittoral zone stretching as far as the edge of the continental shelf.

Intertidal and infralittoral zones, with their coves and caves, are colonized by photophilous assemblages dominated by *Cystoseira amentacea* var. *stricta* in association with *Cystoseira crinita*, sometimes replaced by *Cystoseira brachycarpa*, *Padina pavonica* and *Acetabularia acetabulum*.

On the seabed of Marettimo, the brown alga *Cystoseira amentacea* var. *stricta* is sometimes replaced by *Cystoseira mediterranea* or *C. elegans*, especially in sheltered environments with low sedimentation.

### 3.4.4. Fauna: Describe in a few sentences, which are the main fauna populations present in the area.

The marine fauna shows a remarkable diversity confirmed by the presence of several protected species of the Mediterranean Sea, including the monk seal (*Monachus monachus*) whose presence in some caves of the Egadi has been recorded by the monitoring program organised together with ISPRA.

The intertidal zone is characterized by the presence of the endemic gastropod mollusc *Dendropoma cristatum* (sin. *D. petraeum*) and its "trottoir", a typical biogenic formation of the Mediterranean Sea.

The rocky coastline of Marettimo is one of the last few sites in the western Mediterranean where a *Patella ferruginea* population is still present.

In the infralittoral zone, a fringe of photophilic algae (mainly *Cystoseria* spp.) is usually present, where several benthic species such as sponges, crustaceans, molluscs, etc. find shelter.

*Posidonia* meadows host *Pinna nobilis* and a large number of species and they are breeding areas for numerous fishes.

The pre-coralligenous and coralligenous habitat characterize the seabed of the caves and rocky areas. These habitats are rich in gorgonians (such as *Paramuricea clavata*, *Eunicella cavolinii* and *E. singularis*), hard corals (such as *Cladocora caespitosa* and *Astroides calycularis*) and several other sessile species of invertebrates, bryozoa and sponges.

The whole MPA hosts a great diversity of fish species (such as *Thunnus thynnus* and *Seriola dumerilii* among the migratory species, and *Epinephelus marginatus*, *Thalassoma pavo*, *Coris julis*, among the resident ones), and cetaceans (such as *Tursiops truncatus*, *Stenella coeruleoalba*, *Physeter macrocephalus*, etc.). The coastal cliffs host a colony of storm petrels (*Hydrobates pelagicus*).

### 3.5. HUMAN POPULATION AND USE OF NATURAL RESOURCES

#### 3.5.1 Human population

a) Inhabitants inside the area:

	Number	Date of data
Permanent	4,351	31/01/2018
Seasonal number (additional to permanent)	Around 15,000.00	

Description of the population

According to the data of ISTAT and Municipality of Favignana of 31 January 2018, the population amount to 4,351 inhabitants.

Foreigners represent only 1.5% of the total amount. It is an area with an average aged population. The average age, in fact, is 45 years. Birth rate (2015) is 6.1%, death rate is 11.8%. The aging index is equal to 270.7.

Main human settlements and their populations

The area includes only the archipelago of the Egadi Islands. The Municipality comprises three settlements: Favignana (3,427 inhabitants), Levanzo (219) and Marettimo (704). Favignana is the most urbanized area, where the majority of the population live. Marettimo and Levanzo count a few hundred inhabitants.

#### 3.5.2 Current human use and development

a) Briefly describe the current use of the area by subsistence, artisan, commercial and recreational fishing, hunting, tourism, agriculture and other economic sectors.

According to ISTAT (2011 businesses census) the area counts 323 active enterprises, many of which related to tourism (72 among accommodation and restoration businesses and 45 among rental companies, travel agencies and services for businesses).

Commercial fishing is relevant to the local economy: 165 boats authorized to work within the MPA, 37 of which of the Egadi Islands, and the other fleets of nearby coasts of the Trapani Coast (2017 data).

Other uses of the area (authorizations 2017): recreational fishing (about 1600 authorized), fishing cruise (7 authorized), scuba diving (8 authorized diving centres), marine cruise (63 authorized), marine transport (10 authorized), anchorage (around 2500 authorized), boat renting and leasing services (around 250 authorized).

b) Enter how many of the users depend on these resources, seasonality, and assessment of the social and economic importance of their use and of the perceived impact on the conservation of the area, in a score of 0-1-2-3 (meaning null, low, medium, high).

ACTIVITY AND CATEGORY	ASSESS IMPORTANCE OF Socio-economic Conserv. Impact		Estimated No. of Users	Seasonality
<b>FISHING</b>				
Subsistence	0	0	0	Annual
Commercial, local	3	1	40	Annual
Commercial, non-local	1	2	130	Annual
Controlled recreational	1	2	1700	Annual
Un-controlled recreational	0	0	n.d.	Annual
Other				
<b>TOURISM</b>				
Regulated (activities with authorizations)	3	2	85,000	From spring to autumn
Unregulated (no authorizations)	2	3	600,000	From spring to autumn
Indicate the type of tourism				
- divers (n. tips)	2	2	5,000	April-October
- bathers	2	2	500,000	May-September
- nautical tourism	2	3	5,000	Spring-summer
- cultural tourism	1	1	95,000	From spring to autumn
- naturalistic tourism	3	1	5,000	From spring to autumn
- nautical tours (passengers, not authorizations)	3	3	75,000	May-September
Tourism facilities	3	1	1,000,000	annual
<b>FOREST PRODUCTS</b>				
Subsistence	0	0		
Non-timber commercial, local	0	0		
Non-timber commercial, non-local	0	0		
	0	0		
Timber commercial, local				
Timber commercial, non-local				
Agriculture	2	1	200	annual
Stockbreeding	1	1	200	annual
Aquaculture	0	0		
<b>EXTENSIVE STOCK GRAZING</b>				
Subsistence	0	0		
Commercial, local	0	0		
Commercial, non-local	0	1		
<b>OTHER ACTIVITIES</b>				
-	0	0		
-	0	0		



### 3.5.3. Traditional economic or subsistence uses

Name any environmentally sound traditional activities integrated with nature, which support the wellbeing of the local population. E.g. land, water use, target species, if closed seasons or closed zones are used as management techniques.

Much of the economy of the Egadi Islands is traditionally related to the use of the sea. Commercial fishing is carried out in a traditional way, with small boats and fishing gears (nets, pots, pond nets...). In the past, fishermen used to offer tours of the island to make visitors admire the most beautiful sites, and, during the tours, they also offered meals prepared with local products.

These activities are still practiced today, though they are carried out in a modern way and adapted to the new customer demands.

## 4. MEDITERRANEAN IMPORTANCE OF THE SITE

This Section aims at stressing the importance of the site for conservation at the regional or global scales, as set in Art. 8 para. 2 of the Protocol and B2-a, B2-b and B2-c in Annex I.

### 4.1. PRESENCE OF ECOSYSTEMS/HABITATS SPECIFIC TO THE MEDITERRANEAN REGION

Name the type of habitats considered of Mediterranean specificity, on the basis of the habitat classifications adopted within the framework of MAP, and their estimated cover (Ha).

- I.4.1. Biocenosis of supralittoral rock (2.7ha)
- II.4.1. Biocenosis of the upper mediolittoral rock (1.92ha)
- II.4.2. Biocenosis of the lower mediolittoral rock (3.21ha)
- III.6.1. Biocenosis of infralittoral algae (tot 1,841ha)
- III.5.1. *Posidonia oceanica* meadows (tot 12,536 ha)
- III.2.2. Biocenosis of well sorted fine sands (no data on its surface)
- III.3.2. Biocenosis of coarse sands and fine gravels as a result of underwater currents (tot 3,871 ha)
- IV.2.2. Biocenosis of coastal detritic bottom (tot 344 ha)
- IV.3.1. Coralligenous (tot 102 ha)
- V.3.1. Biocenosis of deep sea corals present in the Mediterranean's bathyal zone (no data on its surface)
- IV.3.3. Biocenosis of shelf-edge rock (tot 102 ha).

## 4.2. PRESENCE OF HABITATS THAT ARE CRITICAL TO ENDANGERED, THREATENED OR ENDEMIC SPECIES

A critical habitat is an area essential to the conservation of the species concerned. These species should be those included in Annex II of the Protocol. E.g. Islets and sea stacks, as small islands in the sea or in large bodies of water, mostly important for water-bird colonies; caves appropriate for monk seals; undisturbed sand beaches where marine turtle nesting occurs; coastal lagoons where threatened fish or bird species feed or breed; tidal flats, coastal or benthic substrates important for marine invertebrates, etc.

Name the habitat types and the species linked to it.

Marettimo's intertidal rocky shore: *Patella ferruginea*.

*Posidonia* meadows: *Posidonia oceanica*, *Cymodocea nodosa*, *Pinna nobilis*, *Asterina pancerii*.

Vermetid reefs: *Dendropoma petraeum*, *Lithophyllum bissoides*, *Neogoniolithon brassica-florida*, *Cystoseira sp.p.*

Caves of Marettimo: *Monachus monachus*, *Hydrobates pelagicus*.

Shallow water coralligenous outcrop: *Astroides calycularis*, *Cladocora caespitosa*.

Deep water coralligenous outcrop: *Anthipatella subpinnata*, *Axinella cannabina*, *Savalia savaglia*.

Deep sea corals: *Madreopora oculata*

## 4.3. OTHER RELEVANT FEATURES (Art. 8 paragraph 2 in the Protocol)

### 4.3.1. Educational Interest (B-3 in Annex I)

E.g. particular values for activities of environmental education or awareness

Environmental education and awareness are main objectives of the Marine Protected Area (MPA). To this purpose some important functional facilities were established both as conservation, and education and awareness tools, such as the "Monk seal Observatory" in Marettimo and the "Sea Turtle Rescue Centre" in Favignana.

The MPA, with the collaboration of environmental associations, has implemented over the years many initiatives to raise awareness and environmental education, organising specific events (cleaning of the beaches and backdrops with the involvement of diving centres and local fishermen), educational paths of environmental education in the schools of Favignana.

Together with Legambiente onlus, the MPA has also activated voluntary "summer-camps" aimed at environmental protection activities.

The staff of the "Sea Turtle Rescue Centre" carry out awareness activities.

In 2018 the MPA signed a collaboration agreement with the Sicilian Regional Scholar Office to start environmental education courses for schools in Sicily.

In 2010 and 2015 the MPA organized training courses for "MPA volunteers", to train people able to support its activities.

#### 4.3.2. Scientific Interest (B-3 in Annex I)

Explain if the site represents a particular value for research in the field of natural or heritage sciences.

From the environmental point of view, the MPA has a particular value for scientific research, especially for 3 habitats: *Posidonia oceanica* meadows, because the MPA hosts one of the widest meadows of the Mediterranean; vermetid reefs; coralligenous.

The last two habitats also have a considerable land- and seascape importance, since they characterize and structure two different portions of the coastal area, the first at tidal level, while the second shapes all the vertical submerged cliffs and the shoals of the archipelago.

The Egadi Archipelago is also extremely important from a point of view of the heritage sciences due to the presence of prehistorical and historical remains documenting the human presence starting from Paleolithic. In addition, the waters of the archipelago were the theatre of the Egadi marine battle during the Punic Wars. Numerous findings (anchors, helmets, amphorae etc.) have been recorded on the seafloor and still new discoveries are made.

#### 4.3.3. Aesthetic Interest (B-3 in Annex I)

Name and briefly describe any outstanding natural features, landscapes or seascapes.

The caves of Marettimo and the intense karst of the island are the most representative feature of the carbonate nature of the Egadi coastline. The numerous caves and tunnels are equally distributed along the coasts and underwater, including aerial, submerged and semi-submerged caves.

Around the Egadi islands a number of rocky shallows provide an impressive natural scenery from an aesthetic point of view as well as in terms of remarkable presence of animal benthic populations, gorgonians and sponges in particular.

The Calcarenites quarries: the long-time mining, especially in the eastern part of Favignana, has affected the coastal landscape, which is characterized by the presence of caves and tunnels. The abandoned caves have now turned into underground gardens with typical Mediterranean vegetation and are human elements with distinctive natural features that make them particularly attractive to visitors.

The caves: several submerged or semi-submerged caves occur along the coastline of the three islands forming a unique landscape scenario. One of the best-known caves is the "Grotta del Genovese", in Levanzo, where it is possible to admire prehistoric paintings portraying scenes of hunting and fishing (tuna fish). A succession of semi-submerged caves characterizes also the coast of Marettimo and is a major tourist attraction. The "Grotta del Cammello" takes its name from a rock at the entrance that looks like a camel's head; the cave presents a large cavern with a small pebble beach. The "Grotta del Presepe" is said to resemble the nativity scene for the shapes taken by the stalactites and stalagmites. The "Grotta della Bombarda" derives its name from the characteristic "blow" made by the sea storms in the little cracks of the rocks.

#### 4.3.4. Main cultural features

Indicate if the area has a high representative value with respect to the cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.

In Favignana, the ancient tuna processing factory "Tonnara Florio" is today an important museum.

It was the most important and modern factory of the Mediterranean for the processing of tuna, built in the second half of the '800 by the initiative of Senator Ignazio Florio. It was the factory where the processing and the canning of the bluefin tuna took place.

Nowadays, it is an excellent example of industrial archeology, transformed into a museum of the "tuna fish farm", where it is possible to see the original boats used to put the tuna trap and to catch the bluefin tuna, and the equipment for the canning of tuna in oil. A guided tour allows the visitors to see all the steps of the canning process, starting from the bluefin tuna catch.

This museum houses also important archaeological findings dating back to the Punic Wars.

It is a primary tourist attraction for visitors coming from the entire world (around 70.000 visitors/year).

On the mainland of Favignana, calcarenite quarries are also present, which represent another example of industrial archeology. The economy, in fact, since the times of the ancient Romans, has been linked to the production of this high quality material for the building industry.

Today the extraction of calcarenite is still active but in small quantities and the abandoned quarries now are hypogeal gardens, with typical plants of the Mediterranean maquis, integrating perfectly into the landscape.

## 5. IMPACTS AND ACTIVITIES AFFECTING THE AREA

### 5.1. IMPACTS AND ACTIVITIES WITHIN THE SITE

#### 5.1.1. Exploitation of natural resources

Assess if the current rates of exploitation of natural resources within the area (sand, water and mineral exploitation, wood gathering, fishing, grazing...) are deemed unsustainable in quality or quantity, and try to quantify these threats, e.g. the percentage of the area under threat, or any known increase in extraction rates.

Professional and recreational fishing are regulated by laws but some illegal activities are still practiced and they are difficult to control especially in winter, due to the amplitude and characteristics of the archipelago.

The main forms of exploitation (especially land and water) are related to seasonal tourism.

#### 5.1.2. Threats to habitats and species

Mention any serious threats to marine or coastal habitats (e.g. modification, desiccation, disturbance, pollution) or to species (e.g. disturbance, poaching, introduced alien species...) within the area.

The biodiversity is affected by the most common human activities, with a highest peak during the touristic season. Visitors' trips and boats anchoring represent the main threats to marine habitats and species. Illegal spearfishing and over-fishing of sea-urchins are existing activities, even if they are countered by important control and awareness activities. The presence of non-native marine species (especially *Caulerpa taxifolia*) may endanger the native habitats.

### 5.1.3. Demand by an increased population and infrastructures

Assess whether the current human presence or an expected increase in frequentation (tourism, passage of vehicles and boats) and any human immigration into the area, or plans to build infrastructures, are considered a threat.

N.D.

### 5.1.4. Historic and current conflicts

Make a brief statement of any historic or current conflicts between users or user groups. Mention briefly any historical or current conflict among users or communities.

The establishment of the MPA and the entry into force of the Regulation in 2010 divided the opinions of the stakeholders. Above all, some professional fishermen expressed discontent because of suspicion and concern about the new rules. However, thanks to several collaboration initiatives and consultation forums, conflicts were mitigated and rules finally shared, except for some isolated dispute settled by the managing Body.

The MPA has initiated an action to contrast illegal trawl fishing by placing anti-trawling bollards in the depths of the three main islands, in areas prohibited to this fishery.

This action was important because the infringements decreased by over 80% in five years, as highlighted from Coast Guard data (Blue Box).

## 5.2. IMPACTS AND ACTIVITIES AROUND THE SITE

In Art.7.2-e the Protocol calls for the regulation of activities compatible with the objectives for which a SPA was declared, such as those likely to harm or disturb species or ecosystems Art.6.h), while Section B4 in Annex I asks to consider “the existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area” (B4-a in Annex I), recommending the existence, in the area and its surroundings, of opportunities for sustainable development (B4-d) and of an integrated coastal management plan (B4-e).

### 5.2.1. Pollution

Name any point and non-point sources of external pollution in nearby areas, including solid waste, and especially those affecting waters up-current.

N.D.

### 5.2.2. Other external threats, natural and/or anthropogenic

Other external threats, natural and/or anthropogenic

Briefly describe any other external threat to the ecological, biological, aesthetic or cultural values of the area (such as unregulated exploitation of natural resources, serious threats on habitats or species, increase of human presence, significant impacts on landscapes and cultural values, pollution problems, any sectorial development plans and proposed projects, etc.), likely to influence the area in question.

Threats: illegal fishing (in particular recreational and bottom trawling fishing); anchor damage, excessive frequentation of the biogenic habitats, expansion of the distribution of Non Indigenous *Caulerpa* spp., damage caused by the of divers, noise due to the boat traffic.

### 5.2.3. Sustainable development measures

Comment whether the area is covered by an integrated coastal management plan, or bordering upon a zone under such a plan. Are there other opportunities for sustainable development provided for in the neighbouring areas?

The Marine Protected Area Regulation (Decree of the Ministry of the Environment of 1st June 2010), together with further municipal measures adopted by the managing Body, regulates the practice of professional and recreational activities both on land and at sea.  
A Management Plan of the SCI ITA010024 « Fondali dell'isola di Favignana» is to be adopted by the MPA managing Body.  
Egadi Islands are included in the local fishery management plan carried out by the Cogepa of Trapani during the 2007-2013 EFF and now intended to continue under the EMFF program 2014-2020.

## 6. EXPECTED DEVELOPMENT AND TRENDS<sup>1</sup>

The foreseeable development and trends of the site do not appear in the list of common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI list, as established in the Protocol and its Annex I. Moreover, this is not always easy to assess and it is necessary to have knowledge about the site, which is not always available to all managers of protected areas; Thus, it is not obligatory to fill in the boxes in this Section 6.

On the other hand, the assessment of this foreseeable evolution and trends constitutes a dynamic supplement to the static knowledge of the site, as it appears in Sections 3, 4 and 5 above. Moreover, it is of significant importance for the definition of the objectives and the management plan of the site.

It thus appears desirable to bringing out the main outlines at least in respect to the following points:

### 6.1. EXPECTED DEVELOPMENT AND TRENDS OF THREATS TO AND PRESSURES UPON THE AREA

Deal briefly in succession with:

- The demographic development in and around the site
- The development of economic activities (other than tourism and recreation) within the area
- The development of local demand on tourism and recreation
- The development of tourism pressure on the area

The Municipality of Favignana showed no substantial growth of the population over the years, thus the demographic increase is not expected to be a threat.  
Non-tourism commercial activities are not expected to produce a significant increase in the sources of environmental impact.  
The professional fishing, potentially the more impactful activity, in recent years don't show a increase in number of active or authorized boats.  
The tourist interest is growing, so it is expected that the upward trend will be maintained. Due to this reason specific attention is paid to enhance the management of human activities as well as to deseasonalizing tourism.

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<sup>1</sup> By expected development and trends are meant the development, which is thought most likely to occur in the absence of any deliberate intervention to protect and manage the site.

## **6.2. POTENTIAL CONFLICTS IN THE AREA**

Make a brief statement of potential use conflicts between the users or group of users of the site.

The main conflicts arise with some users who are not willing to accept some of the new management rules aiming at fighting the illegal practices and regulating the use of the area. Among these are the conflicts between professional and recreational fishing or between yachting and fishing. However, such conflicts are meant to be discussed and tackled with the help of consultation meetings.

## **6.3. EXPECTED DEVELOPMENT AND TRENDS OF THE NATURAL LAND ENVIRONMENT AND LANDSCAPES OF THE AREA:** as expected arising from the evolution of the pressures

The archipelago of the Egadi Islands is also an SCI (ITA010024; Fondali dell'arcipelago Isole Egadi). In December 2016 the MPA managing Body was designated by the Sicilian Region to manage the SCI and draft a management plan. A landscape plan has been put in force in the territory with the aim of describing the natural features and regulating the human activities. A building plan regulating construction works is also nearing completion.

## **6.4. EXPECTED DEVELOPMENT AND TRENDS OF THE MARINE ENVIRONMENT AND SEASCAPES OF THE AREA:** as expected arising from the evolution of the pressures

The Municipality of Favignana is completing a plan to regulate the use of the government maritime property and is also drafting a port master plan soon. In recent years the Marine Protected Area has been actively committed to monitoring, preventing and denouncing any abuse or illicit against the environment.

## **7. PROTECTION REGIME**

### **7.1. LEGAL STATUS** (General Principles "e" and Section C-2 both in Annex I)

#### 7.1.1. Historical background of the protection of the site

The sensitivity towards the environment in the area dates back to the 60s. In the 1980s, intellectuals, environmentalists and regular users of the area managed to remove an oilrig off the coast of Favignana, between the Bue marina and the city of Marsala. Following this success the area has become an important touristic place.

### 7.1.2. Legal texts currently ruling the protection on the site

Enter the national conservation category, the dates and the present enforcement status of the legal instrument declaring the protection of the area. Consider both the land and the marine areas of the site. Include the full text(s) as an annex.

The "Egadi Islands" Italian national MPA has been established by Ministerial Decree of 21/12/1991 and it has been managed by the Municipality of Favignana on behalf of the Italian Ministry for the Environment since 2001.

Other regulations are:

- Ministerial decree of 6 August 1993 «Amendments to the measures of protection of the Egadi Islands Marine Reserve».
- Ministerial decree 17th May 1996 «Amendments to the rules of access to the area B set in front of the island of Marettimo in the Egadi Islands Marine Reserve».
- Ministerial decree 1 June 2010 "Implementation and management regulation of the Egadi Islands Marine Reserve"
- Egadi Islands MPA's Supplementing Regulations (Acts of the Municipal Council of Favignana n. 237/2012, n. 15/2013, No. 47/2013, No. 63 of 31/03/2014, n.46 of 31/03/2015 and 96 of 06/04/2015)

SCIs (Site of Community Importance) and SPAs (Special Protection Areas) – Habitats Directive 92/43/EEC - in the area:

<b>Cod.</b>	<b>Name</b>
ITA010002	Marettimo Island
ITA010003	Levanzo Island
ITA010004	Favignana Island
ITA010024	Seabeds of the archipelago of Egadi Islands

The MPA managing Body has obtained the management of SCI ITA010024 by Decree of Sicily Region No. 814 of 07.11.2016

### 7.1.3. Objectives (General Principles "a" and D-1 in Annex I)

Name in order of importance the objectives of the area as stated in its legal declaration.

Protection of the marine environment;  
 Safeguard and enhancement/restocking of the biological resources;  
 Spread of knowledge on the ecology and biology as well as on the specific environmental features of the area;  
 Scientific research programs in the fields of marine ecology, biology and environmental protection;  
 Development of knowledge on the archaeological finds and enhance their awareness;  
 Promotion of a socio-economic development compatible with the naturalistic features of the area, aiming at boosting the already existing local traditional activities.

### 7.1.4. Indicate whether the national protection regime arises from international treaties enforced or from implementation measures of treaties (Art. 6.a in the Protocol).

The MPA rules comprise the regulation of various human activities, including collection of marine organisms from the sea and from the coast, scientific research, contrast to the presence of alien species, management of recreational boating, recreational and commercial fishing, safeguard of priority habitats and species.



**7.2. INTERNATIONAL STATUS**

**7.2.1. Transboundary or high seas areas**

Complete this section only if the area is transboundary, totally or partially in the high sea, or within areas where the limits of national sovereignty or jurisdiction have not yet been defined. In this case, mention the modalities of the consultation (Art. 9 para. 3A in the Protocol and General Principles “d” in Annex I).

-

**7.2.2. International category**

Mention if the area, or part of it, has been designated and on what date, with an international conservation category (e.g. Specially Protected Area, Biosphere Reserve, Ramsar Site, World Heritage Site, European Diploma, Natura 2000, Emerald network, etc.).

SCIs and SPAs in the area:

Cod.	Name	Date
ITA010002	Marettimo Island (SCI; ZSC)	Sicilian Region Decree of 21/02/2005
ITA010003	Levanzo Island (SCI; ZSC)	Sicilian Region Decree of 21/02/2005
ITA010004	Favignana Island (SCI; ZSC)	Sicilian Region Decree of 21/02/2005
ITA010024	Seabed of the archipelago of Egadi Islands (SCI)	Sicilian Region Decree of 21/02/2005
ITA010027	Archipelago of Egadi – marine and terrestrial area (SPA)	Sicilian Region Decree of 21/02/2005

**7.3. PREVIOUS LEGAL BACKGROUND AND LAND TENURE ISSUES**

Briefly mention if the area or part of it is subject to any legal claim, or to any file open in that connection within the framework of an international body. Describe the land tenure regimes within the area, and append a map if existing.

-

## 7.4. LEGAL PROVISIONS FOR MANAGEMENT (Section D-1 in Annex I)

### 7.4.1. Zoning

Briefly state if the legal text protecting the area provides for different zones to allocate different management objectives of the area (e.g. core and scientific zones in both land and sea, fishing zones, visitation, gathering, restoration zones etc) and in this case the surface area in ha of these zones. Include a map as an annex

Total MPA surface: 53,992.0 ha

The zoning of the MPA is based on 4 main levels of protection:

A Zone (integral reserve): 1,067 ha

B Zone (general reserve): 2,865 ha

C Zone (partial reserve): 21,962 ha

D Zone (protection): 28,098 ha

Zoning classification of sensitive areas. The MPA regulates the protection and conservation of some sites that are considered of interest for the presence of sensitive habitats as well as the human activities associated with them:

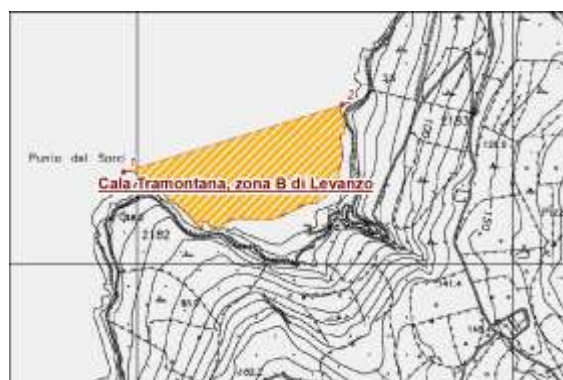
« Capo Grosso », Levanzo zone B

Point;	Latitude;	Longitude
1;	N38° 1' 0,187";	E12° 19' 53,863"
2;	N38° 1' 5,417";	E12° 19' 46,163"
3;	N38° 1' 21,505";	E12° 19' 58,436"
4;	N38° 1' 21,436";	E12° 20' 8,793"
5;	N38° 1' 14,197";	E12° 20' 7,937"



« Cala Tramontana », Levanzo zone B

Point;	Latitude;	Longitude
1;	N38° 0' 34,116";	E12° 19' 22,651"
2;	N38° 0' 40,425";	E12° 19' 46,265"



« Cala del genovese », Levanzo zone B

Point;	Latitude;	Longitude
1;	N38° 0' 10,556";	E12° 19' 16,956"
2;	N38° 0' 11,889";	E12° 19' 16,613"
3;	N38° 0' 12,367";	E12° 19' 15,023"
4;	N38° 0' 17,391";	E12° 19' 17,986"
5;	N38° 0' 16,276";	E12° 19' 20,819"

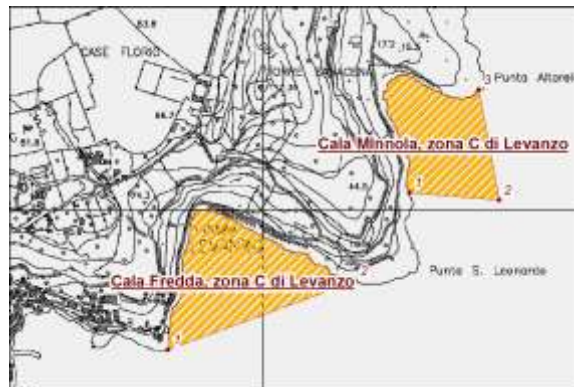


« Cala Fredda », Levanzo zone C

Point;	Latitude;	Longitude
1;	N37° 59' 11,192";	E12° 20' 39,018"
2;	N37° 59' 17,430";	E12° 20' 58,740"

« Cala Minnola », Levanzo zone C

Point;	Latitude;	Longitude
1;	N37° 59' 25,006";	E12° 21' 4,228"
2;	N37° 59' 24,626";	E12° 21' 13,838"
3;	N37° 59' 33,869";	E12° 21' 11,309"



## « Punta Altarella », Levanzo zone C

Point;	Latitude;	Longitude
1;	N37° 59' 54,317";	E12° 20' 52,665"
2;	N37° 59' 56,938";	E12° 20' 58,054"
3;	N37° 59' 44,390";	E12° 21' 7,800"
4;	N37° 59' 43,252";	E12° 21' 5,460"



## « Scalo Maestro », Marettimo zone B

Point;	Latitude;	Longitude
1;	N37° 59' 28,058";	E12° 3' 20,065"
2;	N37° 59' 36,624";	E12° 3' 20,271"
3;	N37° 59' 35,000";	E12° 3' 45,155"

## « Cala Manione », Marettimo C zone

Point;	Latitude;	Longitude
1;	N37° 59' 16,741";	E12° 3' 42,109"
2;	N37° 59' 24,622";	E12° 3' 51,189"



« Conca », Marettimo zone B

Point;	Latitude;	Longitude
1;	N37° 56' 57,329";	E12° 4' 31,306"
2;	N37° 56' 51,275";	E12° 4' 43,290"
3;	N37° 56' 53,343";	E12° 4' 45,382"

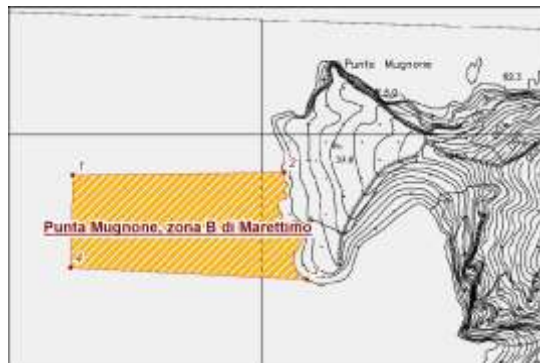
« Finocchio marino », Marettimo zone C

Point;	Latitude;	Longitude
1;	N37° 57' 12,575";	E12° 4' 54,579"
2;	N37° 57' 15,072";	E12° 4' 58,795"
3;	N37° 57' 1,098";	E12° 5' 12,624"
4;	N37° 56' 58,939";	E12° 5' 9,424"



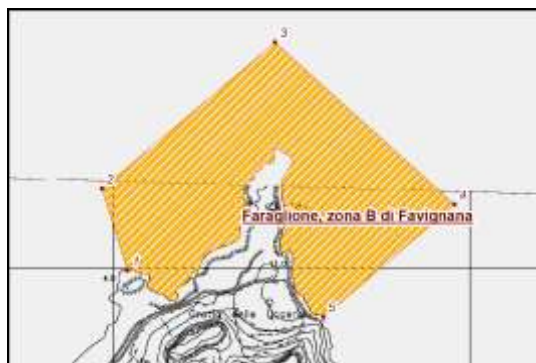
« Punta Mugnone », Marettimo zone B

Point;	Latitude;	Longitude
1;	N37° 59' 24,039";	E12° 1' 19,629"
2;	N37° 59' 24,892";	E12° 1' 43,559"
3;	N37° 59' 15,348";	E12° 1' 46,519"
4;	N37° 59' 15,730";	E12° 1' 19,687"



## « Faraglione », Favignana zone B

Point;	Latitude;	Longitude
1;	N37° 57' 9,676";	E12° 18' 11,335"
2;	N37° 57' 17,021";	E12° 18' 8,142"
3;	N37° 57' 30,689";	E12° 18' 27,466"
4;	N37° 57' 16,517";	E12° 18' 48,551"
5;	N37° 57' 6,008";	E12° 18' 33,891"



## « Cala Rossa », Favignana zone C

Point;	Latitude;	Longitude
1;	N37° 55' 25,738";	E12° 21' 38,425"
2;	N37° 55' 34,859";	E12° 21' 38,567"
3;	N37° 55' 35,179";	E12° 21' 59,197"
4;	N37° 55' 30,975";	E12° 21' 59,291"



« Bue Marino », Favignana zone C

Point; Latitude;	Longitude
1; E12°22'11,695"	N37° 54' 59,143"
2; E12°22'20,857"	N37° 54' 57,935"
3; E12°22'15,769"	N37° 54' 43,849"
4; E12°22'8,43"	N37° 54' 45,598"



« Cala Azzurra », Favignana zone C

Point; Latitude;	Longitude
1; N37° 54' 23,871";	E12° 21' 31,181"
2; N37° 54' 22,565";	E12° 21' 54,901"



« Marasolo », Favignana zone C

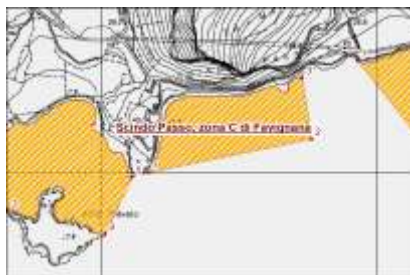
Point; Latitude;	Longitude
1; N37° 55' 14,529";	E12° 18' 51,911"
2; N37° 54' 58,049";	E12° 19' 9,263"





## « Scindo Passo », Favignana zone C

Point;	Latitude;	Longitude
1;	N37° 55' 0,458";	E12° 18' 21,277"
2;	N37° 55' 4,999";	E12° 18' 45,432"
3;	N37° 55' 12,292";	E12° 18' 43,763"



## « Preveto », Favignana zone C

Point;	Latitude;	Longitude
1;	N37° 54' 56,257";	E12° 17' 22,881"
2;	N37° 54' 55,088";	E12° 17' 24,575"
3;	N37° 54' 55,358";	E12° 18' 0,549"
4;	N37° 54' 52,955";	E12° 18' 15,118"
5;	N37° 54' 59,818";	E12° 18' 18,841"



## « Cala Rotonda », Favignana zone C

Point;	Latitude;	Longitude
1;	N37° 55' 24,890";	E12° 16' 46,600"
2;	N37° 55' 19,055";	E12° 16' 49,286"





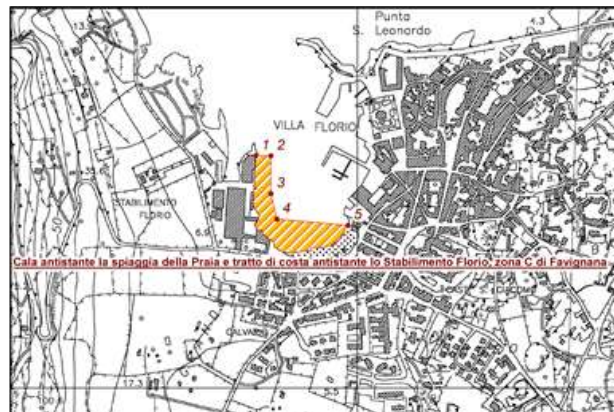
« Pozzo Ponente », Favignana zone C

Point;	Latitude;	Longitude
1;	N37° 56' 4,406";	E12° 16' 21,493"
2;	N37° 56' 3,491";	E12° 16' 34,083"



Cove in front of « Praia beach » and coast in front of « Stabilimento Florio », Favignana zone C

Point;	Latitude;	Longitude
1;	N37° 55' 52,718";	E12° 19' 24,191"
2;	N37° 55' 52,753";	E12° 19' 25,713"
3;	N37° 55' 49,737";	E12° 19' 25,823"
4;	N37° 55' 47,752";	E12° 19' 26,480"
5;	N37° 55' 47,408";	E12° 19' 33,611"



#### 7.4.2. Basic regulations

Mention the provisions, which apply to the area concerning the implementation of Article 6 of the Protocol (paragraphs a to i), Section D5 (a to d) in the Annex I and Article 17 of the Protocol.

Zone A: bathing is permitted, as well as scuba diving (exclusively provided by Favignana's diving centres during the period from 15 April to 15 October in the zone A of Marettimo) and navigation only of entitled Marettimo residents or homeowners' crafts.

Zone B: bathing, free sailing, canoeing and rowing, pedalos or electrical propulsion navigation, diving tours provided by residents' diving centres is permitted. Scuba diving (only level 2 divers), sport fishing, non-industrial fishing, navigation and anchorage (within 500 meters from the coast) is permitted to Favignana's residents or homeowners and is subject to authorization. In Marettimo's zone B, navigation and anchorage, within 500 meters from the coast, even up to a maximum of 40 boats daily, is permitted to non-residents.

Zone C: bathing, free navigation, or free anchorage off the seabed of environmental interest, and guided diving tours provided by residents' diving centres is permitted as well as, prior to authorization, individual diving, sport fishing and small-scale commercial fishing.

Zone D: trawling; purse seine fishing practiced with fishing vessels with a gross tonnage exceeding 10 tonnes.

In the entire MPA underwater fishing, spearfishing as well as poaching (the removal of marine organisms) is prohibited, except for sea urchins, the collection of which is permitted to residents after authorization. Rental and leasing activities are subject to authorization and are regulated by the navigation and anchorage rules; recreational fishing is regulated by the professional fishing rules. Scientific research, photographing, filming and whale watching is permitted.

#### 7.4.3. Legal competencies

Section D4 in Annex I states that the competence and responsibility with regard to administration and implementation of conservation measures for areas proposed for inclusion in the SPAMI List must be clearly defined in the texts governing each area. Additionally Art.7.4. of the Protocol calls for the provision of clear competencies and co-ordination between national land and sea authorities, with a view to ensuring the appropriate administration and management of the protected area as a whole. Mention in which way do the legal provisions clearly establish the institutional competencies and responsibilities for the administration and conservation of the area, and if being the case, their co-ordination means, including those between land and sea authorities.

The MPA Regulation clearly defines the different actors involved in the management of the area together with their respective duties and functions, so as to avoid any possible overlap of roles and responsibilities.

Over the years, the managing Body has also signed agreements with the different police forces (both maritime and terrestrial) in order to foster collaboration.

The managing Body is also responsible of the SCI quality management control.

The management of the area is carried out in synergy with the Municipality of Favignana, the Regional Domain and the Superintendence of Cultural Heritage, each within their competence and in compliance with the sustainable development requirements.

The managing Body also delivers opinions and issues permits concerning any activity or construction work occurring either on the coast or at sea.

#### 7.4.4. Other legal provisions

Describe any other relevant legal provisions, such as those requiring a management plan, the establishment of a local participation body, binding measures for other institutions or economic sectors present in the area, allocation of financial resources and tools, or any other significant measures concerning the protection and management of the area or its surrounding zones.

Along with the Ministerial Regulation, the managing Body, by means of Municipal Council acts, has also issued additional regulatory orders that deal with the different activities more in detail. Ordinances are in force, each time adopted, if necessary, by the Italian coast guard, which is the authority responsible for the sea and coast surveillance.

## 8. MANAGEMENT

Through the General Principles, para. (e) in the Annex I, the Parties agree that the sites included in the SPAMI List are intended to have a value as examples and models for the protection of the natural heritage of the region. To this end, the Parties ensure that sites included in the List are provided with adequate legal status, protection measures and management methods and means.

### 8.1. INSTITUTIONAL LEVEL

#### 8.1.1. Authority/Authorities responsible for the area

The MPA was established in 1991 by Italian national decree of the Ministry of Environment and the Ministry of Merchant Marine.  
Since 2001, the MPA management has been entrusted to the Municipality of Favignana, on behalf of the Ministry of Environment.  
MPA organization chart: The President of the MPA is the Mayor of Favignana. Together with the municipal bodies (Board and Council), he is responsible for the political management of the MPA as well as for the approval of the guidelines and the establishment of the objectives.  
The Director, appointed by the Ministry of the Environment on a proposal from the managing Body, deals with the ordinary administrative and technical management of the MPA.

#### 8.1.2. Other participants in the management body

Such as other national or local institutions, as stated in Section D6 in Annex I.

None

#### 8.1.3. Participants in other committees or bodies

Such as a scientific committee, or a body of representatives from the local stakeholders, the public, the professional and non-governmental sectors, as in Sections B4-b and B4-c in Annex I.

Following the Italian national law on MPAs, the «Reserve Commission» appointed by the Ministry of the Environment supports the managing Body in any matter concerning the management of the site (delivering opinions on any proposal for updating the rules and regulations as well as for revising and updating the zoning classification or the annual financial plan);  
The Technical Scientific Committee, to support both the managing Body and the Reserve Commission in all technical and scientific matters, is yet to be established.

#### 8.1.4. Effectiveness

As stated in Section B4 of Annex I, assess as very low, low, moderate, satisfactory, very satisfactory, and comment as needed on the following aspects:

a) Effectiveness of the co-ordination, where existing:

**Satisfactory**

b) Quality of involvement by the public, local communities, economic sectors, scientific community:

**Satisfactory**

The MPA in cooperation with Enea has drafted a regulation for an environmental label for tourism operators (receptivity, catering, fishing, rentals, diving centres, guided tours, passenger transport). Today there are about 100 operators with the label. The MPA has signed a protocol to create a network of the Sicilian MPAs, in order to enhance the experiences and knowledge exchanges, share and resolve the problems. The MPA signed, in the time, agreements with ISPRA, ENEA, CNR, CoNISMa, Palermo University, Rome Tre University, La Sapienza University for development of monitoring and research projects and activities, improve knowledge on the environment and the Management Processes. The MPA signed agreements with local associations and environmental associations to carry out the initiative in support of the Institutional Mission.

### 8.2. MANAGEMENT PLAN (as set out in D7 of Annex I)

#### 8.2.1. Management Plan

State if there is a management plan (MP) and in this case include the document as an annex. In the absence of a MP, mention if the main provisions governing the area and the main regulations for its protection are already in place and how (D7 in Annex I) and if the area will have a detailed management plan within three years (D7 in Annex I).

In 2012 the MPA joined the ISEA project promoted by the Ministry of the Environment along with Federparchi, which included the drafting of Coherent ISEA Management Plans to be implemented in each Italian marine reserve. This initiative allowed defining a management plan conceived on Italian national standardised basis and focused on the gathering of the necessary data for the realization of a report on the most valued natural elements and on the direct and indirect environmental impacts in each area.

#### 8.2.2. Formulation and approval of the Management Plan

Mention how the MP was formulated, e.g. by an expert team and/or under consultation and/or participation with other institutions or stakeholders. State the legal status of the MP, whether it is officialized, and how, and if it is binding for other institutions and sectors involved in the area.

The MPA has been drawn up by the Director of the MPA. The document has been first referred to the decision-making bodies, i.e. Board and Council of the Municipality of Favignana, for approval. Then, it was sent to the Ministry of the Environment who approved the document by decree.

### 8.2.3. Contents and application of the Management Plan

State the degree of detail in the MP by entering YES or NO in the following list of potential contents, and assess the degree of implementation of the MP by using the 0-1-2-3 score on the right hand side:

	Existing in MP	Degree of application
Detailed management objectives	YES	3
Zoning	YES	3
Regulations for each zone	YES	3
Governing body(ies)	YES	3
Management programmes as:		
Administration	YES	1
Protection	YES	3
Natural resource management	YES	3
Tourism and Visitation	YES	1
Education and Training	YES	2
Research and Monitoring	YES	3
Services and Concessions	YES	2
Fund raising activities	YES	1
Periodic revisions of the MP	YES	1

### 8.3. PROTECTION MEASURES

By Art. 6 of the Protocol the Parties agree to take all the necessary protection measures required for the conservation of the area, particularly the strengthening the application of the other Protocols to the Convention, and through the regulation of any other activity likely to harm the natural or cultural value of the area, such as economic, recreation or research activities. As per Section D2 in Annex I, the protection measures must be adequate to the site objectives in the short and long term, and take in particular into account the threats upon it.

#### 8.3.1. Boundaries and signing

Briefly, state if the boundaries of the area and its zones are adequately marked in the field, both on land, in the sea, and at the principal points of access.

The MPA and its boundaries are showed on the charts and on the harbour handbooks. The zones A of the MPA are delimited by specific buoys. The rest of the area has no physical or noticeable boundary delimiting the access to the area. There are information boards at the major sites of interest which give information about the MPA.

#### 8.3.2. Institutional Collaboration

Name the different national and local institutions or organisations with legal responsibilities or involved in the protection and surveillance of land and sea zones, and any measures or mechanisms through which their co-ordination is pursued.

The MPA comprises a vast territory on which it is difficult to keep an ongoing control. Over the years, thanks to the collaboration with the police forces as well as to the control activities by the MPA, some improvement has been made, though the activity of surveillance still needs to be intensified as well as the human resources increased.

### 8.3.3. Surveillance

Surveillance both at sea and on the coast is provided by the competent authorities: Coastguard; State Police; Municipal Police; Penitentiary Police, Carabinieri

The MPA has signed agreements with the Penitentiary Police for the surveillance of the area with a view to ensuring full compliance with the MPA rules.

A trained staff of the Municipal Police undertakes any activity of control to ensure compliance with the MPA rules at sea.

In winter, the MPA provides its own human resources to provide support to the authorities responsible for the surveillance at sea.

### 8.3.4. Enforcement

Briefly, consider the adequacy of existing penalties and powers for effective enforcement of regulations, whether the existing sanctions can be considered sufficient to dissuade infractions, and if the field staff is empowered to impose sanctions.

The applicable rules and sanctions are not adequate. The managing Body brought forward a proposal to amend the current rules concerning the crimes against the MPA and the environment, which proposal has been referred to the legislator.

In fact, in 2016 the MPA sent a proposal to amend the law 394/91 to Federparchi (the Federation of the parks and MPAs of Italy), which transmitted it to the Ministry of Environment and the Senate Environment Committee.

In particular, we asked to apply the sanctions of the current rules on fisheries, even in the case of violations of the MPAs rules, in order to make them more stringent and act as a real deterrent against illegal fishing.

Currently the sanction applied is only 51 euros, instead of 4000 euros. Also, in the case of illegal fishing for sea urchins or illegal fishing near the coast (trawl, purse seine, ...), particularly impactful for the seabed and for the juveniles of fish species or other target organisms of fishing. The economic value of the catches of illegal fishing activities is higher than the amount of penalties provided for by the rules and, in cases of recurring or habitual behavior, the sanctioning action, which inevitably occurs from time to time, is therefore not very effective.

The proposed amendment is still under consideration by the competent authorities, but the approval would represent an excellent result to enhance the positive effects of the surveillance and the MPA management.

## 9. AVAILABLE RESOURCES

### 9.1. HUMAN RESOURCES (Art. 7.2.f in the Protocol)

#### 9.1.1. Available staff

Assess the adequacy of the human resources available to the management body, in number of employees and training level, both in central headquarters and in the field. Indicate if there are staff training programmes.

The MPA avails of a small expert team, including temporary staff, external experts, students, university internships and volunteers. In addition, external companies provide some services and support, especially at sea. The MPA staff has been trained on certain tasks over the years, but the managing Body intends to strengthen their skills with more targeted courses. A human resources management plan should be drafted with a view also to ensuring steadier external staff.

### 9.1.2. Permanent field staff

Answer YES or NO on the current existence of the following FIELD staff categories. If YES, enter the number of staff either permanent or part-time in that category, and evaluate on a 0-1-2-3 score (0 is low, 3 is high) the adequacy of their training level.

	YES/NO	NUMBER Permanent/Part-time	ADEQUACY OF TRAINING LEVEL
Field Administrator	YES	1 Part time	3
Field Experts (scientific monitoring)	YES	3 project staff	2
Field Technicians (maintenance, etc)	YES	3 Project staff	2
Wardens	YES	1 Part time	2
Of which marine wardens	NO	4 Part time	2
Guides	NO		
Other	NO		

Year of data: 2017

### 9.1.3. Additional Support

Briefly, describe if the area currently has the advantage of other external human resources in support of its objectives, either from other national or local institutions, volunteer programmes, non-governmental organisations, academic or international organisations. Mention if there are any significant changes in prospect for the near future.

Besides its expert team comprising 15 employees, the Marine Protected Area avails of the support of cooperatives to perform a certain number of tasks including front desk, management of the moorings, surveillance at sea, management of both the "Sea Turtle Rescue Centre" and the "Monk Seal Observatory" and development of projects. 25 operators are involved.

University trainees and volunteers assist the staff in the daily activities.

The MPA cooperates with such environmental associations as Legambiente and Marevivo to provide support in some areas (eg. "Sea Turtle Rescue Centre").

According to the agreements in force, the MPA conducts research and monitoring activities with the support of scientific institutions (i.e. universities, CoNISMa, ISPRA, Enea, CNR).

## 9.2. FINANCIAL RESOURCES AND EQUIPMENT

By Art. 7 in the Protocol, the Parties agree to adopt measures or mechanisms to ensure the financing of the specially protected areas (Art.7.2.d), and the development of an appropriate infrastructure (Art.7.2.f). The General Principles para. "e" in the Annex I call upon the Parties to provide the areas with adequate management means.

### 9.2.1. Present financial means

Note if the basic financing is ensured: a core funding for basic staff, protection and information measures. Who provides this core funding? Briefly assess the degree of adequacy of the present financial means for the area, either low, moderate, satisfactory; e.g. the implementation of the management plan, including protection, information, education, training and research.

The Italian Ministry of the Environment provides the core funding. In recent years, public funding allocated to the MPA's has been reduced compared to the past. Egadi islands MPA covers a large area. The budget available is sufficient to manage and carry out ordinary management activities. Through participation in projects and initiatives, the managing body attracts further contributions to allow for the expansion of the interventions and measures necessary for an optimal management of the area.

### 9.2.2. Expected or additional financial sources

Briefly describe any alternative sources of funding in use or planned, and the perspectives for long-term funding from national or other sources.

For the management and surveillance of the area, the MPA avails of profits from the granted authorizations, the entrance tickets, the sanctions as well as from voluntary donations. The MPA is in partnership with private parties that sponsor activities and projects. It has also participated in calls for either international or national programs.

### 9.2.3. Basic infrastructure and equipment

Answer YES or NO to the following questions, and if YES, assess with a score of 1-2-3 (1 is low, 3 is high) the adequacy of the basic infrastructure and equipment.

	YES/NO	ADEQUACY
Office and/or laboratory in the field	YES	1
Signs on the main accesses	YES	2
Guard posts on the main accesses	NO	0
Visitors information centre	YES	1
Self guided trails with signs	YES	2
Terrestrial vehicles	YES	3
Marine vehicles	YES	3
Radio and communications	YES	2
Environmental awareness materials	YES	2
Capacity to respond to emergencies	YES	2
Comment on basic infrastructure and equipment		

## 9.3. INFORMATION AND KNOWLEDGE

By Section D3 of Annex I, the Parties agree that the planning, protection and management of a SPAMI must be based on an adequate knowledge of the elements of the natural environment and of socio-economic and cultural factors that characterize each area. In case of



shortcomings in basic knowledge, an area proposed for inclusion in the SPAMI List must have a programme for the collection on the unavailable data and information.

9.3.1. State of knowledge

a) Assess the general state of knowledge of the area.

0	1	<u>2</u>	3
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b) Briefly describe the extent of knowledge of the area, considering at least specific maps, main ecological processes, habitat distribution, inventories of species and socio-economic factors, such as artisan fishing.

The informative overview is good on the whole, but it can improved, considering the high extent of the area that made it difficult to timely and complete analysis.  
 The MPA is working to improve knowledge through the development of a GIS platform, which includes information on zoning, protected species, sensitive habitats, professional fishing areas and the use of diving, bathing and mooring fields; signaling alien species and jellyfishes and useful information from a management point of view.  
 Through the work on environmental accounting and with some studies and monitoring carried out within the Marine Strategy, knowledge on the presence and status of some natural resources is being deepened and a monitoring of their status has been started. On socio-economic aspects, have been activated by the MPA technical tables with fishermen, operators carrying passengers, moorings and diving centers, and with all tour operators, in the quality brand of touristic services (80 certified operators).

9.3.2. Data collection

Describe and assess the adequacy of any programme and activities to collect data in the area.

The monitoring activities, in particular Environmental accounting, carried out in recent years have sought to deepen aspects of the state of the environment and resources in a useful and functional way. Relate natural features and peculiarities of the area with socio-economic aspects of the archipelago, it made possible to deepen in terms of cost / benefit relationship between the environment and man. The project to implement a GIS platform, which allows geo-referencing all available information, provides an opportunity for better territorial management.

9.3.3. Monitoring programme

Section D8 in Annex I states that to be included in the SPAMI List, an area will have to be endowed with a monitoring programme having a certain number of significant parameters, in order to allow the assessment of the state and trends of the area, as well as the effectiveness and protection and management measures, so that they may be adapted if need be (indicators may, for instance, supply information about species status, condition of the ecosystem, land-use changes, extraction of natural resources -sand, water, game, fish-, visiting, adherence to the provisions of the management plan, etc.).

a) Is there a monitoring programme?

<b>YES</b>	<b>NO</b>
------------	-----------

b) If NO, are there plans to start one, and when?

c) If YES, assess as low, medium, satisfactory, its adequacy and present level of development.

Medium

d) If YES, who is/are carrying out the monitoring programme?

A monitoring programme is with scientific support of CoNISMa (*Patella ferruginea*, *Pinna nobilis*, *Posidonia oceanica*, fauna ittica, coralligenous)  
 A monitoring programme on monk seal (*Monachus monachus*) with ISPRA (from 2011)  
 A study about commercial fishing is made with CSR pesca (research private enterprise) and IAMC-CNR (2015)  
 A monitoring programme about *Posidonia oceanica* meadow and fishes (from 2013) with ENEA.

e) If YES, briefly describe how the monitoring programme will be used in reviewing the management plan.

The monitoring activities, giving answers on the status of habitats and resources can direct the management rules, in case it is necessary, from the results, to correct or modify something (number of authorizations, access to some areas, fishing gear ...) or for example in the implementation of damage mitigation measures.

#### 10. Other information, if any

In the annex:

The Ministerial decree establishing the MPA, in 1991;  
 The ministerial decree entrusting the management of the MPA to the Municipality of Favignana, in 2001;  
 The Ministerial decree approving the Regulation of the MPA, in 2010;  
 The integrative Disciplinary approved by the Managing Body, about further regulation of MPA, in 2011-2018  
 The three-year ISEA management plan (2018-2020).

11. CONTACT ADDRESSES (name(s), position(s) and contact address(es) of the person(s) in charge with the proposal and that compiled the report)

Legal representative: Mr. Giuseppe Pagoto, Mayor of the Municipality of Favignana and President of "Egadi Islands" Marine Protected Area


Contacts: Mr. Giuseppe Pagoto, Mayor of the Municipality of Favignana and President of "Egadi Islands" Marine Protected Area

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12. SIGNATURE(S) ON BEHALF OF THE STATE(S) PARTY/PARTIES MAKING THE PROPOSAL


 ISOLE EGADI  
 COMUNE DI FAVIGNANA  
 PROVINCIA REGIONALE DI TRAPANI  
 PRESIDENTE DELL'AMP  
 Il Sindaco  
 Giuseppe Pagoto

*Giuseppe Pagoto*

13. DATE

1.06.2019



**ANNEX III:**

**Presentation report of the “Landscape Park Strunjan” proposed  
by Slovenia for inclusion in the SPAMI List**

*The annexes to the Presentation report of “Landscape Park Strunjan” are available here:*  
[http://rac-spa.org/nfp14/documents/spamis/annex\\_to\\_the\\_af\\_slovenia\\_landscape\\_park\\_strunjan.rar](http://rac-spa.org/nfp14/documents/spamis/annex_to_the_af_slovenia_landscape_park_strunjan.rar)



**LANDSCAPE PARK STRUNJAN (SLOVENIA) MARINE PROTECTED  
AREA**

**PRESENTATION REPORT  
FOR INCLUSION IN THE SPAMI LIST**



## OBJECTIVE

The objective of this Annotated Format is to guide the Contracting Parties in producing reports of comparable contents, including the information necessary for the adequate evaluation of the conformity of the proposed site with the criteria set out in the Protocol and in its Annex I (Common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List).

## CONTENTS

The presentation report shall include the following main information on: (i) identification of the proposed protected area (ii) site description (iii) its Mediterranean importance (iv) the activities in and around the area and their impacts (v) legal status (vi) management measures (vii) human and financial resources available for the management and the protection of the site.

## SUBMISSION OF REPORTS

The reports should be submitted to the RAC/SPA two months before the meeting of National Focal Points for SPA in English or in French.

Dossiers should be compiled on A4 paper (210 mm x 297 mm), with maps and plans annexed on paper with a maximum size of an A3 paper (297 mm x 420 mm). Contracting Parties are also encouraged to submit the full text of the proposal in electronic form.

The requested annexes should be submitted on paper and, if possible, also in electronic form. They are the following:

- Copies of legal texts
- Copies of planning and management documents
- Maps: administrative boundaries, zoning, land tenure, land use, and distribution of habitats and species, as appropriate
- Existing inventories of plant and fauna species
- Photographs, slides, films/videos, CD-ROMs
- List of publications and copies of the main ones concerning the site

**N.B.:** All the following sections have to be in the report submitted, even those sections or elements that do not apply to the proposed area. Where that is the case, please put “not applicable to the proposed area”.



## 1. AREA IDENTIFICATION

### 1.1. COUNTRY/COUNTRIES (in the case of transboundary areas)

Slovenia

### 1.2. ADMINISTRATIVE PROVINCE OR REGION

Obalno Kraška regija

### 1.3. NAME OF THE AREA

Landscape Park Strunjan (English)  
Krajinski park Strunjan (original name)

### 1.4. GEOGRAPHIC LOCATION

Describe its geographical boundaries, e.g. rivers, roads, geographical or administrative boundaries (do not describe the co-ordinates here; please make a separate annex with a map and a description of geographical co-ordinates as stated in the legal declaration of the area).

Landscape Park Strunjan is situated in the south-western part of Slovenia on the Adriatic coast. It comprises the area of the Strunjan peninsula (**Annex 2, Photo 1**), projecting into the Gulf of Trieste, the northernmost part of the Mediterranean; the 200m-long shoreline; and the entire bay of Strunjan. It lies between the towns of Izola and Piran. Towards the south-west, the peninsula slopes gently down into the Strunjan valley – the flat area of the Strunjan river (Roja river), along which the town of Strunjan has developed and where the gently sloping seashore has been transformed by the construction of the salt pans and the lagoon. Along the northern and north-eastern border of the land area, abrasion processes have created fragmented and steep cliffs with the small Capes of Kane, Ronek and Strunjan. Between the last two is the Bay of St. Cross. On the southern border of the Park, on both sides of the road, there is a pine avenue which has been proclaimed a natural monument. The Park has three narrow protected areas: Naravni rezervat Strunjan (Strunjan Nature Reserve), Naravni rezervat Strunjan-Stjuža (Strunjan-Stjuža Nature Reserve), and Naravni spomenik Pinijev drevored (Natural Monument Pine trees avenue).

**Annex 1** - The boundaries of the Park and the narrow protected areas are shown on the annexed map at a 1:20,000 scale, which is an integral part of the Decree on Landscape Park Strunjan (the legal declaration of the area).

Legend:

Krajinski park – Landscape Park

Naravni rezervat Strunjan – Nature Reserve Strunjan

Osrednji del Naravnega rezervata Strunjan - Nature Reserve Strunjan core area

Naravni rezervat Strunjan Stjuža – Nature Reserve Strunjan Stjuža

Naravni spomenik Pinijev drevored – Natural Monument Pine trees avenue

### 1.5. SURFACE OF THE AREA (total)

428,6 ha

### 1.6. LENGTH OF THE MAIN COAST (Km)

6,2 Km

## 2. EXECUTIVE SUMMARY (maximum 3 pages)

Landscape Park Strunjan was established on 2nd February 1990 by the Ordinance on the declaration of Landscape Park Strunjan by the municipalities of Izola and Piran. In 1999, a new basic regulation for the protection of nature in Slovenia was adopted, namely the Nature Conservation Act, on the basis of which the Government of the Republic of Slovenia adopted the Decree on Landscape Park Strunjan.

The primary purpose of the establishment of the Landscape Park Strunjan was the protection of natural values and the preservation of biodiversity and landscape diversity. This is achieved by conserving natural values, biodiversity, populations of endangered and internationally protected wild plant and animal species, and habitat types. The park area preserves the landscape with its mosaic distribution of landscape structures, the ecological characteristics of the salt pans, the lagoon and the seashore, and the natural processes and connections between the splash zone, the intertidal zone and the infralittoral.

In 2008, the amended Decree stated that the Government of the Republic of Slovenia would establish a Public Institute which carries out public services in the field of protection of nature, manages databases related to the Park within the framework of public powers, and carries out direct nature protection supervision in the area of the Park.

The most characteristic part of Landscape Park Strunjan is the up to 80m-high Strunjan Cliff, which, together with the overgrown edge and the 200m-long stretch of sea below it, was designated the Strunjan Nature Reserve. This is the longest stretch of pristine coastline on the entire 130-km coast between Grado in Italy and Savudrija in Croatia, delimited by the Gulf of Trieste. Coastal cliffs with preserved natural shores and preserved vegetation in the hinterland are extremely rare throughout the Mediterranean. On the edge of the nature reserve there is one of the two largest known biogenic formations in Slovenia. The ridge, which comprises a 500m wide shoreline and seabed in front of the Cape Ronek, is formed of dead corallites of Mediterranean stony coral (*Cladocora caespitosa*).

The Strunjan-Stjuža Nature Reserve comprises the northernmost and the smallest salt pans in the Mediterranean, where sea salt has been manually obtained by a traditional method for over 700 years, and the area of Stjuža – the only Slovenian sea lagoon.

The coastal and marine part of the KPS is mainly characterized by rocky coast under Eocene flysch cliffs, an artificial marine lagoon and a small sized salt pans.

The great majority of the rocky coast is still pristine, with supralittoral belt well developed in exposed zones. The mediolittoral belt is mostly made of stones and rocks, whereas the deeper infralittoral is characterized by the presence of sandstone terraces, large rocks and boulders. They are mainly covered with algal vegetation (biocoenosis of photophilic algae), especially brown algae of the genus *Cystoseira*. Extensive seagrass meadows of *Cymodocea nodosa* are present on the sandy bottom. The infralittoral biocoenosis of photophilic algae is in deeper water with decreased light conditions replaced by the (pre)coralligenous biocoenosis, also known to host a great biodiversity.

The spatial heterogeneity is very high and is one of the main reasons explaining the outstanding biodiversity in this area (**Annex 2, Photo 2**).

A particularity of the marine part of the Park is the common bottlenose dolphin (*Tursiops truncatus*). The area of the Park is also important for the loggerhead sea turtle (*Caretta caretta*), because during the warm periods of the year young turtles feed in the broader area of the Park. Eighty-three species of fish have been found within the area of the Park, which corresponds to 45% of all species found in the Slovenian seas. The area of Strunjan Park, compared to other protected areas of the Slovenian coastal sea, is characterized by the great variety of benthic invertebrates.

The characteristic species of birds are the Mediterranean gull (*Larus melanocephalus*), shag (*Phalacrocorax aristotelis desmarestii*) and sandwich tern (*Thalasseus sandvicensis*). The salt pans and the lagoon see the regular appearance of the little and the great egrets (*Egretta garzetta* and *E. alba*), black-winged stilt (*Himantopus himantopus*), shelduck (*Tadorna tadorna*), common kingfisher (*Alcedo atthis*) and numerous species of sandpipers, grebes and seagulls. Stjuža is also the wintering ground of the Eurasian coot (*Fulica atra*).

Most of the terrestrial parts of area are covered by agricultural land, organized in terraces and stone walls, a feature typical for the Slovenian coastal area. On the contrary, the upper edge of the cliffs and the gorges, which are the result of erosion processes are overgrown by the typical deciduous sub-Mediterranean community of *Ostrya quercetum pubescentis*, in which *Spartium junceum* and *Arundo donax* are also abundant. At the warmest sites there are some representatives of typical Mediterranean undergrowth species, whereas in shady sites the structure of the forest changes and the stand consists of a slightly more mesophilic Austrian oak (*Quercus cerris*). Sub-Mediterranean woody species, which are mostly found on the cliffs, are hop-hornbeam (*Ostrya carpinifolia*), flowering ash (*Fraxinus ornus*) and pubescent oak (*Quercus pubescens*).

Floristically most interesting is the part of the cliffs named Cape Ronek, where in spite of its northern position and the prevalent flysch substratum, some typical Mediterranean species also occur, such as *Mirtus communis* and *Arbutus unedo*. In this area, three completely naturally preserved ecosystems meet within a short distance: the sea, the rock faces and the forest, which to date has been preserved in its original form and which in accordance with the Decree on Protective Forests and Forests with a Special Purpose, will be proclaimed a protected forest.

The salt basins and lagoon embankments are sites where numerous species of halophytes on the Red List of Endangered Species are found, such as: shrubby swampfire (*Sarcocornia fruticosa*), common glasswort (*Salicornia europea*), golden samphire (*Inula crithmoides*), swamp sea-lavender (*Limonium angustifolium*), bluish-leaved Wormwood (*Artemisia caerulescens*), and seashore aster (*Aster tripolium*).

Sea grass meadows of *Cymodocea nodosa* are the main habitat type also in the lagoon while on the embankments and in the salt fields halophytic plant assemblages are prevailing. The lagoon that was once a small bay is an example of euryhaline & eurytherm habitat, characterized by extreme ecological conditions as it is the case of the salt pans. Of importance in the Stjuža lagoon is the Mediterranean killifish (*Aphanius fasciatus*)

The most important traditional activities in the Park are agriculture, fishing and salt-making. Agriculture is almost entirely oriented towards the cultivation of agricultural plants on permanent and non-permanent plantations. Agriculture significantly impacts the landscape of the Strunjan peninsula. The most characteristic element of the agrarian landscape of the Strunjan peninsula is the cultivated terraces.

In the area of the Park, an important role is played also by coastal fishing. In the past decade, six fishermen had licences for commercial fishing in the renovated fishing port. Commercial fishing is conducted with small vessels and, most importantly, with bottom-set gillnets and trammel nets – rarely with fish traps. According to the weight, the largest proportion of catches consisted of the following species: common sole (*Solea solea*), common cuttlefish (*Sepia officinalis*), sea bream (*Sparus aurata*), European flounder (*Platichthys flesus*), common pandora (*Pegellus erythrinus*), European bass (*Dicentrarchus labrax*), black scorpionfish (*Scorpaena porcus*) and flathead grey mullet (*Mugil cephalus*). Mariculture activities are carried out by five shellfishermen, to a limited extent within the Strunjan fishing reserve, where part of the area of the nurseries, where edible mussels are grown, extends within the Park boundaries.

Since the 13<sup>th</sup> century at least, the Strunjan salt pans have been an area of traditional salt-making. A special feature of the salt pans is a clay base covered with a layer of petola, which primarily prevents the mixing of salt with sea mud and allows the production of pure, white salt without admixture. Salt has been obtained manually, with tools and by a method of over 700.

Another important activity in the area of the Park is tourism. Each year, the Park is visited by approximately 300,000 visitors, concentrated in the summer season. In July and August, the area is visited by 37% of all annual tourists, and from May to September, as many as 66%. Day visitors who do not spend the night in the Park are not included in these statistics. The most frequent activities of the visitors are swimming, hiking, cycling and seafaring. The area of the Park offers many opportunities for the development of sustainable tourism, which derives from a rich and well-preserved natural and cultural heritage, and the historical legacy of the traditional activities of the inhabitants.

On the basis of the Nature Conservation Act and the Decree on Landscape Park Strunjan, the Government of the Republic of Slovenia adopted the Decree on the Management Plan of Landscape Park Strunjan for the period 2018-2027 on 28<sup>th</sup> February 2019.

The Management Plan of the Landscape Park Strunjan provides for development policies, ways of implementing the protection, use and management of the protected area, and detailed protection regimes. It is a key programme document for the long-term and effective preservation of the values of the protected area, which sets out the objectives and tasks for the management of the Landscape Park over a period of 10 years.

### 3. SITE DESCRIPTION

#### 3.1. TYPOLOGY OF THE SITE

3.1.1. Terrestrial surface, excluding wetlands (ha):	218 ha	
3.1.2. Wetland surface (ha):	34,1 ha	
3.1.3. Marine surface (Sq. Km):	Marine internal waters	17,65 sq. km
	Territorial sea	Not applicable to the
	High sea	Not applicable to the

#### 3.2. MAIN PHYSICAL FEATURES

##### 3.2.1. Geology/Geomorphology

Give a brief description of: (i) geological aspects (lithologic and tectonics); (ii) processes of sedimentation and erosion observable in the area; (iii) coastal geomorphology and (iv) island system. Indicate bibliographical sources.

The entire area of Landscape Park Strunjan belongs to the tectonic unit of the Adriatic foothills, comprising the major part of Istria and extending up to the Kraški Rob ridge. A characteristic of the Adriatic foothills is that they consist of cretaceous and tertiary shallow-water carbonate rocks and Eocene flysch rocks (**Annex 2, Photo 3**). The area of the Landscape Park is entirely formed of middle-Eocene flysch rocks. Flysch is a sequence of clastic sedimentary rocks that originated in the deep sea in the foreland basin environment. Flysch is deposited during the active formation of mountains and for this reason is said to be syn-orogenic (simultaneous with the formation of the mountains). A characteristic of flysch is that these layers repeat in cycles, and the entire sequence can become very thick. Various thick, grainy silicic rocks, predominately marl and sandstone, interchange in this sequence. In some areas of the Park, the marl and sandstone contain particularly well preserved sedimentation cycles, sedimentary textures, trace fossils made by different organisms (ichnofossils), and lithological varieties, an important feature of which is the sandy limestone megabed, which is best seen between the small Cape of Strunjan and Bay of St. Cross. The rocks here show that the flysch was formed in the deep sea (Placer, 2009; Šmuc, 2012). The sea coast of the Park is one of the richest deposits of Eocene ichnofossils in Slovenia, and it is also one of the reasons it is distinguished from the other parts of the shoreline of the Gulf of Trieste (Jurkovšek, 2009). The inclination of the cliffs at the Cape Ronek, where the cliffs are also at their highest, is about 70°, and the total width of the abrasion and submarine terrace is well over 100m, the flattest of the entire Slovenian coast. The shoreline runs transversely to the direction of the flysch layer, which is why it falls within the ria coast. The flysch forms the precipitous cliff walls – a very steep, vertical and sometimes overhanging wall located at the intersection between land and sea.

Between the present hills of Ronek in the north and Lucan in the south, the Roja river in Strunjan cut the Strunjan valley. Its erosive action, and the actions of other minor, mostly torrential, watercourses, of which today only the Borgola watercourse is permanent, created a floodplain in the estuary, on which people made the salt pans.

Jurkovšek, B. (2009, 11). Paleontološke znamenitosti Krajinskega parka Strunjan. Geološki zavod Slovenije.

Placer, L. (2009, 11). Sedimentološke, tektonske in geomorfološke znamenitosti Krajinskega Parka Strunjan. Geološki zavod Slovenije.

Šmuc, A. (2012, 7). Geologija.

The most characteristic part of Landscape Park Strunjan is the up to 80m-high **Strunjan Cliff (Annex 2, Photo 4)**, which, together with the overgrown edge and the 200m-long stretch of sea below it, was designated the Strunjan Nature Reserve (**Annex 2, Photo 5**). This is the longest stretch of pristine coastline on the entire 130-km coast between Grado in Italy and Savudrija in Croatia, delimited by the Gulf of Trieste. Coastal cliffs with preserved natural shores and preserved vegetation in the hinterland are extremely rare throughout the Mediterranean. Since the cliffs and the seashore have been left to natural processes, this stretch of the coast comprises very diverse habitat types. The splash zone and the intertidal zone are natural and pebbly, with exceptional giant blocks of limestone. With depth, the flysch debris becomes smaller and, in some parts sooner than in others, it turns into silty sea floor.

On the edge of the nature reserve there is one of the two largest known biogenic formations in Slovenia. The ridge, which comprises a 500m wide shoreline and seabed in front of the Cape Ronek, is formed of dead corallites of Mediterranean stony coral (*Cladocora caespitosa*).

The Strunjan-Stjuža Nature Reserve (**Annex 2, Photo 6**) comprises the area of the Strunjan salt pans and lagoon. **The Strunjan salt pans** are the northernmost and the smallest salt pans in the Mediterranean, where sea salt has been manually obtained by a traditional method for over 700 years. They were created through the transformation of the tidal flats of Strunjan bay by the construction of embankments, canals and shallow salt basins. Their primary role was originally economic; today the salt pans preserve the cultural heritage and, above all, are landscape conservation areas, since they represent an exceptional living environment where endangered plant and animal species which were able to adapt to extreme salt conditions are found. **Stjuža** is the only Slovenian sea lagoon. Its name derives from the Italian word “chiusa”, which means closed. The tidal flat was created by the Strunjanska river which deposited sediments at the river mouth. After the construction of the embankment, which artificially closed the bay more than 400 years ago, the lagoon remained connected to the sea only by an overflow. There are no water currents or major waves, and the water flow depends exclusively on the low and high tides. Being on average only half a metre deep, water in the lagoon rapidly gets hot or cold. Today, the lagoon area is included in the Natura 2000 network, with the main purpose of conserving biodiversity through the protection of natural habitats of endangered species of flora and fauna.

### 3.2.3. Length of beaches (in Km), including islands:

a) Length of sandy beaches:

Not applicable to

b) Length of pebble or stony beaches:

5,5 km

c) Length, height and depth of active sand-dunes:

Not applicable to

### 3.3. FRESHWATER INPUTS

#### 3.3.1. Mean annual precipitation (in mm)

1042 mm/year (average annual precipitation in the period 1961-1990)

#### 3.3.2. Main water courses (permanent and seasonal)

The area of the Strunjan peninsula is part of the Adriatic river basin, together with the sea. The flysch sediment base is impermeable and provides a well-developed network of surface currents (Kolbezen and Pristov, 1998). The Roja river flows within the boundaries of the Park in the area of the salt pans, and in addition to its floodplain in the Strunjan Valley, it also created tidal flats in the Strunjan Valley by its deposits. The Borgola river runs in the west part of the Park, and flows into the Stjuža lagoon. The rivers of Roja and Borgola have been regulated over the past centuries due to the needs of agriculture and land drainage, and in the case of the Roja river, also because of the construction of salt pans. Abundant precipitation, most often in autumn and the first half of winter, create smaller, temporary torrential watercourses.

#### 3.3.3. Estuarine areas: Existence and brief description

Within the Park there is also a small estuarine area of the Roja river which flows through the salt pans and into Strunjan bay. It is classified as a Natura 2000 habitat of outfalls or estuaries which represent contact between the marine, freshwater and terrestrial ecosystems. They occur on the alluvia deposited by rivers or streams, and are therefore rich in nutrients. The water is murky and its salinity changes with the tides. Due to the great difference in salinity over the day, organisms die rapidly, and this further enriches the water with nutrients. During low ebb tides in winter, part of the estuary (the mud flats) can be entirely dry.

#### 3.3.4. Freshwater springs: Existence and brief description, including marine offsprings

The area of the Park has several wells and some springs which have not been inventoried in detail.

### 3.4. BIOLOGICAL FEATURES (B2, Annex I)

3.4.1. Habitats: A brief description of dominant marine and terrestrial habitats, on the basis of the habitat classifications adopted within the framework of MAP (and their coverage in ha)

#### II.1.1. Biocoenosis of muddy sands and muds

Both habitats, *Association with halophytes* (**Annex 2, Photo 7**) and *Facies of salt pans* cover the central part of the protected area and represent an important cornerstone of the marine and coastal species and habitat diversity. The maintenance of the salt pans infrastructure and the continuation of salt production is defined as one of the most important conservation measures in order to assure the good conservation status of the two habitats.

#### II.4. and III.6. Hard bed and rocks

Hard bed and rocks represent the most dominant habitat type of the strictly marine part of the protected area. They both host many different algal associations, mainly linked to the genus *Cystoseira* (**Annex 2, Photo 8**) as well as some important biogenic formations of stony coral, including the largest reef in the Slovenian sea in front of Cape Ronsek.

#### III.2. Fine sands with more or less mud

The fine sands that follow the hard beds and rocks are hosting seagrass meadows that are reaching their lower limit at a depth between 8 and 10 m, with *Cymodocea nodosa* as the most dominant species (**Annex 2, Photo 9**).

**Annex 3.1** - Map of marine and terrestrial habitat types in both Nature Reserves.

**Annex 3.2** - Map of marine habitat types in Nature Reserve Strunjan

**Annex 3.3** - Legend of marine habitat types in Nature Reserve Strunjan

### 3.4.2. List of regionally important species (flora and fauna) (B-2a, Annex I)

List here ONLY those species protected by international agreements, particularly those marine species included in Annex II of the Protocol, which are present in the area. Any other species may be listed if it is clearly considered of regional importance given its high representation in the area. Display the species list under the headings Marine Plants, Terrestrial Plants, Marine Invertebrates, Fish, Amphibians and Reptiles, Birds, and Mammals. For each species state:

- a) its relative abundance as Common (C), Uncommon (U) or Occasional (O),
- b) Its global status as rare (r), endemic (e) and/or threatened (t), and
- c) its status as an important resident population (R), or important for its breeding (B), feeding (F), wintering (W) or migratory passage (M)



SPECIES	Rel. Abundance (C) (U) (O)	Global STATUS (r) (e) (t)	Local STATUS (R) (B) (F) (W) (M)
In the table below are listed species protected by international agreements, particularly those marine species included in Annex II of the Protocol, which are present in the area. Other species are listed in <b>Annex 4</b> - Inventory of flora and fauna in Strunjan Landscape Park.			
MARINE PLANTS			
<i>Cystoseira adriatica</i>	U	r,t	R
<i>Cystoseira barbata</i>	U	t	R
<i>Cystoseira crinita</i>	O	r,t	R
<i>Cystoseira corniculata</i>	U	r,t	R
<i>Zostera marina</i>	U	r,t	R
<i>Zostera noltii</i>	U	t	
TERRESTRIAL PLANTS			
<i>Myrtus communis</i>	U	r,t	R
<i>Arbutus unedo</i>	U	r,t	R
<i>Centaurium tenuiflorum</i>	C	t	R
<i>Suaeda maritima</i>	C	t	R
<i>Spergularia marina</i>	C	t	R
<i>Ruppia maritima</i>	C	t	R
<i>Puccinellia fasciculata</i>	C	t	R
<i>Puccinellia palustris</i>	C	t	R
<i>Parapholis incurva</i>	C	t	R
<i>Parapholis strigosa</i>	C	t	R
<i>Salicornia herbacea</i>	C	t	R
<i>Arthrocnemum fruticosum</i>	C	t	R
<i>Limonium serotinum</i>	C	t	R
<i>Arthrocnemum glaucum</i>	C	t	R
<i>Salsola soda</i>	C	t	R
<i>Juncus maritimus</i>	C	t	R
<i>Inula crithmoides</i>	C	t	R
MAMMALS			
<i>Tursiops truncatus</i>	C	t	R
BIRDS			
<i>Phalacrocorax aristotelis desmarestii</i>	C	t	F
<i>Pandion haliaetus</i>	O	r,t	F
<i>Larus melanocephalus</i>	C	t	B
<i>Sterna sandvicensis</i>	C	t	R
<i>Egretta garzetta</i>	C	t	R
REPTILES			
<i>Caretta caretta</i>	O	t	F
FISH			
<i>Aphanius fasciatus</i>	C	r,t	R
<i>Hippocampus guttulatus</i>	C	r,t	R
<i>Sciaena umbra</i>	C	r,t	R
MARINE INVERTEBRATES			
<i>Aplysina aerophoba</i>	C	t	R
<i>Tethya aurantium</i>	U	t	R

<i>Tethya citrina</i>	C	t	R
<i>Cladocora caespitosa</i>	C	t	R
<i>Lithophaga lithophaga</i>	C	r,t	R
<i>Pholas dactylus</i>	C	t	R
<i>Pinna nobilis</i>	C	t	R
<i>Hippospongia communis</i>	C	t	R
<i>Spongia officinalis</i>	U	r,t	R
<i>Maja squinado</i>	O	r,t	R
<i>Vertigo angustior</i>			

### 3.4.3. Flora: Describe in a few sentences the main plant assemblages significant in the area.

Most of the area is covered by agricultural land, organized in terraces and stone walls, a feature typical for the Slovenian coastal area. On the contrary, the upper edge of the cliffs and the gorges, which are the result of erosion processes, are overgrown by the typical deciduous sub-Mediterranean community of *Ostrya quercetum pubescentis*, in which *Spartium junceum* and *Arundo donax* are also abundant. At the warmest sites there are some representatives of typical Mediterranean undergrowth species, such as evergreen rose (*Rosa sempervirens*), wild madder (*Rubia peregrine*), wild asparagus (*Asparagus acutifolius*), osyris (*Osyris alba*) and rough bindweed (*Smilax aspera*). In shady sites the structure of the forest changes and the stand consists of a slightly more mesophilic Austrian oak (*Quercus cerris*). Sub-Mediterranean woody species, which are mostly found on the cliffs, are hop-hornbeam (*Ostrya carpinifolia*), flowering ash (*Fraxinus ornus*) and pubescent oak (*Quercus pubescens*).

Floristically most interesting is the part of the cliffs named Cape Ronek, where in spite of its northern position and the prevalent flysch substratum, some typical Mediterranean species also occur, such as *Mirtus communis* and *Arbutus unedo*. In this area, three completely naturally preserved ecosystems meet within a short distance: the sea, the rock faces and the forest, which to date has been preserved in its original form and which in accordance with the Decree on Protective Forests and Forests with a Special Purpose, will be proclaimed a protected forest.

The salt basins and lagoon embankments are sites where numerous species of halophytes on the Red List of Endangered Species are found, such as: shrubby swampfire (*Sarcocornia fruticosa*), common glasswort (*Salicornia europea*), golden samphire (*Inula crithmoides*), sea-lavender (*Limonium angustifolium*), bluish-leaved Wormwood (*Artemisia caerulescens*), and sea aster (*Aster tripolium*).

In the sea two main assemblages are present, the biocoenosis of infralittoral algae, represented mainly by associations with *Cystoseira* species on the rocky bottom and extensive seagrass meadows of *Cymodocea nodosa* on the sandy bottom. Sea grass meadows of *Cymodocea nodosa* are the main habitat type also in the lagoon while on the embankments and in the salt fields halophytic plant assemblages are prevailing.

### 3.4.4. Fauna: Describe in a few sentences, which are the main fauna populations present in the area.

A particularity of the marine part of the Park is the common bottlenose dolphin (*Tursiops truncatus*). The area of the Park is also important for the loggerhead sea turtle (*Caretta caretta*), because during the warm periods of the year young turtles feed in the broader area of the Park. Eighty-three species of fish have been found within the area of the Park, which corresponds to 45% of all species found in the Slovenian seas. Of importance in the Stjuža lagoon is the Mediterranean killifish (*Aphanius fasciatus*). The area of Strunjan Park, compared to other protected areas of the Slovenian coastal sea, is characterized by the great variety of benthic invertebrates. The characteristic species of birds are the Mediterranean gull (*Larus melanocephalus*), shag (*Phalacrocorax aristotelis desmarestii*) and sandwich tern (*Thalasseus sandvicensis*). The salt pans and the lagoon see the regular appearance of the little and the great egrets (*Egretta garzetta* and *E. alba*), black-winged stilt (*Himantopus himantopus*), shelduck (*Tadorna tadorna*), common kingfisher (*Alcedo atthis*) and numerous species of sandpipers, grebes and seagulls. Stjuža is also the wintering ground of the Eurasian coot (*Fulica atra*).

### 3.5. HUMAN POPULATION AND USE OF NATURAL RESOURCES

#### 3.5.1 Human population

a) Inhabitants inside the area:

	Number	Date of data
Permanent	454	2012
Seasonal number (additional to permanent)	278.679	2009

Description of the population

According to the data of the Statistical Office of the Republic of Slovenia (SORS), 454 people lived in the area of the Park in 2012, and in the past decade the number of inhabitants has slightly increased.

According to the data from 2010, a little more than 11% of inhabitants belonged to the age group 0-14 years, 67% to the age group 15-65 years, and 22% of the population were over 65 years of age. The aging index, calculated on the basis of data for the Park area, is 183 and is among the highest in Slovenia (the index for the whole of Slovenia is 117).

The educational structure of the Park's population aged 15 years and over is slightly better than the average educational structure in Slovenia. According to the population census data, in 2011 28% of the Park's population had primary school education or none at all (Slovenian average: 29%); 42% had secondary education (Slovenian average: 53%); and 19% had a degree or diploma (Slovenian average: 17%). Unemployment in the Park area in 2011 was not high, as only 13 of the 191 active inhabitants were unemployed. Due to the large proportion of elderly people in the area of the Park, there were as many as 209 inactive inhabitants.

Main human settlements and their populations

Landscape Park Strunjan consists of two minor settlements – Strunjan and Dobrava. The Park extends into the areas of the municipalities of Izola and Piran.

Settlement in Landscape Park Strunjan is uneven. The population density ranges from 112 to 336 inh./km<sup>2</sup>. Landscape Park Strunjan is one of the most populated protected areas in Slovenia, although the mosaic or scattered type of settlement (**Annex 2, Photo 10**) is preserved within it, and population density is higher than that of Slovenia in general (101 inhabitants/km<sup>2</sup>).

### 3.5.2 Current human use and development

- a) Briefly describe the current use of the area by subsistence, artisan, commercial and recreational fishing, hunting, tourism, agriculture and other economic sectors.

The favourable natural conditions of the Strunjan peninsula, especially the marine climate and the leeward aspect, allowed humans to settle and develop traditional economic activities in harmony with nature. The scattered settlement, terraced farming, coastal fishing and artisanal salt-making have co-shaped the cultural landscape characterized by the diversity of living and cultural environments.

The most important traditional activities in the Park are agriculture, fishing and salt-making. **Agriculture (Annex 2, Photo 11)** is almost entirely oriented towards the cultivation of agricultural plants on permanent and non-permanent plantations. Despite a reduction in the volume of agricultural land in the past decades, areas with organic farming have increased substantially; these are mostly areas with permanent olive and persimmon groves. Agriculture significantly impacts the landscape of the Strunjan peninsula. The most characteristic element of the agrarian landscape of the Strunjan peninsula is the cultivated terraces, i.e. vineyard and agricultural, fruit-growing and horticultural, and, above all, purely horticultural terraces. They are the most suitable for growing early vegetables, including the native types of artichoke.

In the area of the Park, an important role is played also by **coastal fishing (Annex 2, Photo 12)**. In the past decade, six fishermen had licences for commercial fishing in the renovated fishing port. Commercial fishing is conducted with small vessels and, most importantly, with bottom-set gillnets and trammel nets – rarely with fish traps. According to the weight, the largest proportion of catches consisted of the following species: common sole (*Solea solea*), common cuttlefish (*Sepia officinalis*), sea bream (*Sparus aurata*), European flounder (*Platichthys flesus*), common pandora (*Pegellus erythrinus*), European bass (*Dicentrarchus labrax*), black scorpionfish (*Scorpaena porcus*) and flathead grey mullet (*Mugil cephalus*). Mariculture activities are carried out by five shellfishermen, to a limited extent within the Strunjan fishing reserve, where part of the area of the nurseries, where edible mussels are grown, extends within the Park boundaries.

Since the 13th century at least, the **Strunjan salt pans** have been an area of traditional salt-making (**Annex 2, Photo 13**). During the Venetian Republic, the extremely pure white salt was an important merchandise, which made the city of Piran, it is said, “grow on salt”. The basis for the salt is the recent sediment which was mostly washed ashore in Strunjan by the Roja river. This sediment is the basic material for the construction of the infrastructure of the salt pans, such as embankments and canals. The crystallization beds have a clay base covered with a layer of petola, which primarily prevents the mixing of salt with sea mud and allows the production of pure, white salt without admixture.

The area of the Park is covered by 29 ha of woods excluded from management, or their management is completely subordinated to their emphasized protective function, so interventions and deforestation are not permitted. The area of the Park belongs to the hunting management area of the Primorska region. The planning and implementation of hunting activities is adapted to the prescribed protection regimes of the Park area.

Another important activity in the area of the Park is **tourism**. Each year, the Park is visited by approximately 300,000 visitors, concentrated in the summer season. In July and August, the area is visited by 37% of all annual tourists, and from May to September, as many as 66%. Day visitors who do not spend the night in the Park are not included in these statistics. The most frequent activities of the visitors are swimming, hiking, cycling and seafaring. The area of the Park offers many opportunities for the development of sustainable tourism, which derives from a rich and well-preserved natural and cultural heritage, and the historical legacy of the traditional activities of the inhabitants.

b) Enter how many of the users depend on these resources, seasonality, and assessment of the social and economic importance of their use and of the perceived impact on the conservation of the area, in a score of 0-1-2-3 (meaning null, low, medium, high).

ACTIVITY AND CATEGORY	ASSESS IMPORTANCE OF								Estimated No. of Users	Seasonality
	Socio-economic				Conserv. Impact					
<b>FISHING</b>										
Subsistence	0	1	2	3	0	1	2	3		
Commercial, local	0	1	2	3	0	1	2	3		
Commercial, non-local	0	1	2	3	0	1	2	3		
Controlled recreational	0	1	2	3	0	1	2	3		
Un-controlled recreational	0	1	2	3	0	1	2	3		
Other										
<b>TOURISM</b>										
Regulated	0	1	2	3	0	1	2	3		
Unregulated	0	1	2	3	0	1	2	3		
Indicate the type of tourism										
- nautical tourism	0	1	2	3	0	1	2	3		
- hotels and second houses	0	1	2	3	0	1	2	3		
- recreation	0	1	2	3	0	1	2	3		
Tourism facilities	0	1	2	3	0	1	2	3		
<b>FOREST PRODUCTS</b>										
Subsistence	0	1	2	3	0	1	2	3		
Non-timber commercial, local	0	1	2	3	0	1	2	3		
Non-timber commercial, non-local	0	1	2	3	0	1	2	3		
Timber commercial, local	0	1	2	3	0	1	2	3		
Timber commercial, non-local	0	1	2	3	0	1	2	3		
<b>AGRICULTURE</b>										
Agriculture	0	1	2	3	0	1	2	3		
Stockbreeding	0	1	2	3	0	1	2	3		
Aquaculture	0	1	2	3	0	1	2	3		
<b>EXTENSIVE STOCK GRAZING</b>										
Subsistence	0	1	2	3	0	1	2	3		
Commercial, local	0	1	2	3	0	1	2	3		
Commercial, non-local	0	1	2	3	0	1	2	3		

### 3.5.3. Traditional economic or subsistence uses

Name any environmentally sound traditional activities integrated with nature, which support the well being of the local population. E.g. land, water use, target species, if closed seasons or closed zones are used as management techniques.

Economically, tourism and agriculture are by far the most important activities. They are both integrated with the natural environment, the agricultural activities focused on local products and practices. Economically less important but key activities in terms of cultural heritage conservation as well as in terms of land use adapted to the local environment are salt production, small scale fishery and aquaculture.

A detailed description of traditional economic uses is provided in the chapter 3.5.2

#### 4. MEDITERRANEAN IMPORTANCE OF THE SITE

This Section aims at stressing the importance of the site for conservation at the regional or global scales, as set in Art. 8 para. 2 of the Protocol and B2-a, B2-b and B2-c in Annex I.

##### 4.1. PRESENCE OF ECOSYSTEMS/HABITATS SPECIFIC TO THE MEDITERRANEAN REGION

Name the type of habitats considered of Mediterranean specificity, on the basis of the habitat classifications adopted within the framework of MAP, and their estimated cover (Ha).

- II.1.1. Biocoenosis of muddy sands and muds;
  - II.1.1.1. Association with halophytes
  - II.1.1.2. Facies of salt pans
- II.4.2. Biocoenosis of the lower mediolittoral rock
  - II.4.2.1. Association with *Fucus virsoides* (missing from 9/2015)
- III.1.1. Euryhaline and eurytherm biocoenosis
  - III.1.1.1. Association with *Ruppia cirrhosa*
- III.2.2. Biocoenosis of superficial muddy sands in sheltered waters
  - III.2.3.3. Facies with *Loripes lacteus*
- III.6.1. Biocoenosis of infralittoral algae
  - III.6.1.16 Association with *Cystoseira crinita*
  - III.6.1.14 Facies with *Cladocora caespitosa*

##### 4.2. PRESENCE OF HABITATS THAT ARE CRITICAL TO ENDANGERED, THREATENED OR ENDEMIC SPECIES

A critical habitat is an area essential to the conservation of the species concerned. These species should be those included in Annex II of the Protocol. E.g. Islets and sea stacks, as small islands in the sea or in large bodies of water, mostly important for water-bird colonies; caves appropriate for monk seals; undisturbed sand beaches where marine turtle nesting occurs; coastal lagoons where threatened fish or bird species feed or breed; tidal flats, coastal or benthic substrates important for marine invertebrates, etc.

Name the habitat types and the species linked to it.

- **Coastal lagoons & Biocenosis of muddy sands and muds** (*Egretta garzetta*, *Larus melanocephalus*, *Phalacrocorax aristotelis desmarestii*, *Sterna sandvicensis*)
- **Salt pans** (*Aphanius fasciatus*)
- **Seagrass meadows** (*Pinna nobilis*, *Hippocampus guttulatus*)
- **Sandstone terraces** (*Lithophaga lithophaga*, *Pholas dactylus*)
- **Infralittoral hard beds and rocks** (*Cladocora caespitosa*, *Sciaena umbra*)

## **OTHER RELEVANT FEATURES (Art. 8 paragraph 2 in the Protocol)**

### **4.3.1. Educational Interest (B-3 in Annex I)**

E.g. particular values for activities of environmental education or awareness

The Public Institute Landscape Park Strunjan, as the site manager, carries out tours guided by experts in the entire area of the Park for primary and secondary school pupils, faculty students, and other groups, and also for individual visitors to the Park during the season. It promotes the offer of guided tours, which includes a tour of the exhibition at the Visitor Centre at the Strunjan salt pans, and 3 thematic trails, i.e. botanical, geological and geographical. Each year thematic lectures and workshops for primary schools are organized.

The Visitor Centre in the salt pan house (**Annex 2, Photo 14**) hosts an exhibition about Landscape Park Strunjan entitled "Par of the Sea". The trilingual exhibition outlines all the important characteristics of the Park and explains their inseparable connection with the sea. A film about Landscape Park Strunjan is also broadcast in the Centre.

In 2015, a 5.5 km circular learning trail, "Strunjan: A Portrait by the Sea" (**Annex 2, Photo 15**), was created in the Park, and it is equipped with information boards and rest stops with benches. In 2016, the trail was awarded the Best Thematic Trail of Slovenia.

### **4.3.2. Scientific Interest (B-3 in Annex I)**

Explain if the site represents a particular value for research in the field of natural or heritage sciences.

For decades, due to the complexity and diversity of its living environments, Landscape Park Strunjan has been the subject of scientific research relating to the lagoon (communities, processes, eutrophication), salt pans (development and distribution of halophytic communities), and the marine part of the area. The seagrass meadows of *Cymodocea nodosa* are still a reference point for assessing the status of seagrass meadows on the Slovenian coast; this also applies to the brown algae *Cystoseira* communities in front of the Cape Ronek. In the area of the nature reserve, research has been carried out on the population density of the noble pen shell (*Pinna nobilis*), date shell (*Lithophaga lithophaga*) and cushion coral (*Cladocora caespitosa*). The shoreline of the Park is one of the richest deposits of Eocene ichnofossils in Slovenia, and of the whole shoreline of the Gulf of Trieste.

The offshore profile of the flysch layers is a special feature in Slovenia from the viewpoint of structural geology because, due to the relatively small deformations, it is possible to see very beautiful, practically textbook examples of different structures. The cliffs end in faults in front of Strunjan bay, whereas in front of the Cape Kane they end in an underwater landslide with a clearly visible thrust duplex structure. These are the largest geological sights of the Park. The flysch in front of Bay of St. Cross reveals an exceptionally beautiful section of the St. Cross thrust fault. The approximately one metre wide fault zone consists of rocks that were tectonically completely transformed, with numerous deformation structures indicating that the thrust fault was active at a time when rocks were at a greater depth than today. Erosion formations in the surface relief are visible as more or less pronounced indentations in the upper edge of the cliff. Under the sandy limestone megabed there are also some shallow rock shelters.

Finally, from the viewpoint of research, the biological diversity of old varieties in agriculture is also important because of the genetic analyses of indigenous and traditional varieties of agricultural plants in the area of Strunjan, and the preservation of seed material which is threatened by genetic erosion.

#### 4.3.3. Aesthetic Interest (B-3 in Annex I)

Name and briefly describe any outstanding natural features, landscapes or seascapes.

Within the Slovenian coastline, the Strunjan peninsula represents a unit that has remained preserved from intensive urbanization and industrialization. The Strunjan peninsula and the bay which opens at the end of the Strunjan Valley represent a complete unit, with elements of primordial and cultivated nature (stone walls, terraces) characterized by their natural features and the testimony of human influence.

An important geomorphological and picturesque feature is the Strunjan cliff, which is up to 80m high and has many typical geomorphologic phenomena, such as rock shelters and faults.

The Strunjan salt pans together with the Stjuža lagoon are particularly special and picturesque, formed by the transformation of the deposits of the Roja river into a system of embankments, canals and shallow salt basins. They are the northernmost and smallest salt pans in the Mediterranean, where salt has been manually produced by a traditional method for over 700 years.

On the southern border of the Park, on both sides of the road, there is a pine avenue which was planted after 1935 and consists of 110 pine trees. The pine avenue is the longest and best preserved in Slovenia, and in 2014 it was designated a Natural Monument.



#### 4.3.4. Main cultural features

Indicate if the area has a high representative value with respect to the cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.

The area of Landscape Park Strunjan includes a total of 23 units of immovable cultural assets:

Type of cultural heritage	Number of units of local significance
Archaeological heritage	2
Cultural landscape	1
Memorial heritage	1
Settlement heritage	1
Garden and architectural heritage	2
Secular building heritage	12
Sacred building heritage	2
Sacred and secular building heritage	1
Technical heritage	1
<b>TOTAL</b>	<b>23</b>

The typical settlement pattern in the area of the Landscape Park is scattered, which is expressed in the area of the Strunjan-Naselje settlement monument (EŠD\* 14156). A scattered settlement is a type characterized by hilly, rolling landscapes where agriculture is present. Farmhouses or farm homesteads are spread over a large area, including agricultural land. Homes are mostly located on top of the ridges, valley edges or on slopes.

The area of the Strunjan salt pans (EŠD\* 8077), which according to the rules on the protection of cultural heritage is protected both as an area of cultural landscape and as a technical monument, preserves the traditional processes and methods for the production of salt. The most important movable cultural assets related to the traditional production of salt are the tools for the production of salt (*badil* – metal spade, *taperini* – wooden clogs, *gavero* – wooden scraper, *butasso* – container, small net, *paloto* – wooden spade) and salt-pan infrastructure (cavedin – crystallization bed, *bochela* – sluice paddle, water pump).

Some of the movable assets which are not well documented are connected to traditional fishing (fishing nets made of thread, wooden fishing vessels).

The most important movable cultural assets include a drawing of an estate in Strunjan kept at the Tartini House in Piran, and the Villa Tartini furniture, which is held by the Maritime Museum in Piran.

\* EŠD - heritage registration number

## 5. IMPACTS AND ACTIVITIES AFFECTING THE AREA

### 5.1. IMPACTS AND ACTIVITIES WITHIN THE SITE

#### 5.1.1. Exploitation of natural resources

Assess if the current rates of exploitation of natural resources within the area (sand, water and mineral exploitation, wood gathering, fishing, grazing...) are deemed unsustainable in quality or quantity, and try to quantify these threats, e.g. the percentage of the area under threat, or any known increase in extraction rates.

The main activity in terms of natural resources exploitation is small scale fishing, which is regulated (banned in the Strunjan-Stjuža Nature Reserve and in the core area of the Strunjan Nature Reserve and with time closures in the rest of the area). Salt gathering in the salt pans is regulated so to maintain the good conservation status of the habitat types and species. No other relevant exploitation of natural resources is taking place in the area.

#### 5.1.2. Threats to habitats and species

Mention any serious threats to marine or coastal habitats (e.g. modification, desiccation, disturbance, pollution) or to species (e.g. disturbance, poaching, introduced alien species...) within the area.

Anchoring of leisure boats is probably the most serious threat to marine habitats and species. It is banned from the core area but still allowed in the rest of the park. Flooding on the one hand and penetrating of the sea water through the main embankments on the other represent an important threat to the habitat types of the salt pans.

#### 5.1.3. Demand by an increased population and infrastructures

Assess whether the current human presence or an expected increase in frequentation (tourism, passage of vehicles and boats) and any human immigration into the area, or plans to build infrastructures, are considered a threat.

No major increase of the local population and/or tourism infrastructure is expected in the near future. Elevated human presence during the summer season (including traffic) represents a certain threat to the processes in the narrow coastal area (bathing, boating) and on the terrestrial part of the park.

#### 5.1.4. Historic and current conflicts

Make a brief statement of any historic or current conflicts between users or user groups.

As a consequence of the very limited marine area there is some competition for space between small scale fishermen while there are no major conflicts between fishermen and tourists thanks to the fact that the summer season does not overlap with the main fishing activities. There are some conflicts in the summer season between local inhabitants and tourists due mainly to the high number of visitors (car parking outside parking lots, entering private property, etc.).

## 5.2. IMPACTS AND ACTIVITIES AROUND THE SITE

In Art.7.2-e the Protocol calls for the regulation of activities compatible with the objectives for which a SPA was declared, such as those likely to harm or disturb species or ecosystems (Art.6.h), while Section B4 in Annex I asks to consider “the existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area” (B4-a in Annex I), recommending the existence, in the area and its surroundings, of opportunities for sustainable development (B4-d) and of an integrated coastal management plan (B4-e).

### 5.2.1. Pollution

Name any point and non-point sources of external pollution in nearby areas, including solid waste, and especially those affecting waters up-current.

The oceanographic specificities of the northern part of the Adriatic Sea and also the Slovenian sea (shallow, semi-enclosed area, slow water exchange) coupled with the riverine inputs from cross-border drainage basins (i.e. Pad, Adiža, Livenza and Soča) result occasionally in increased litter densities. Human activities that have a significant impact on the release of marine litter in the coastal and marine environment are mainly tourism and recreation, sewage treatment plants discharges, and also maritime transport, fisheries and mariculture.

### 5.2.2. Other external threats, natural and/or anthropogenic

Briefly describe any other external threat to the ecological, biological, aesthetic or cultural values of the area (such as unregulated exploitation of natural resources, serious threats on habitats or species, increase of human presence, significant impacts on landscapes and cultural values, pollution problems, any sectorial development plans and proposed projects, etc.), likely to influence the area in question.

Apart of the increase of human presence, the external threats are limited almost entirely to the overall ecological status of the waters in the Gulf of Trieste and the future development of the maritime transport sector as well as tourism, especially leisure boating. There could be negative impacts linked to the development plans of the two municipalities and the tourist companies, however, due to the fact that they have to adapt their plans to the conservation goals and measures of the protected area, the possible negative impacts can be evaluated as very limited.

In the past few decades, the Slovenian part of the Adriatic Sea has been subject to some processes that are in one way or another related to global warming. In 2011 and 2012 certain phenomena for this environment that can be associated with the consequences of climate change have been observed in the marine area of the Strunjan Nature Reserve. The findings relate to the appearance of some species of fish that are associated with the process of tropicalization. Due to increased temperatures over the past few years, there are warm-water species in the southern parts of the Adriatic and even more so in the Mediterranean Sea. In addition to these newcomers, three non-native species of marine organism were confirmed in the area of the Nature Reserve.

A new phenomenon in 2013 was the emergence of coral bleaching. This is due to overly high temperatures and causes the loss of the endosymbiotic algae zooxanthellae, and is closely related to global warming. In the colonies of the Mediterranean stony coral numerous examples of small, pronounced and complete coral bleaching were observed. Also, winter, summer and annual increments of corallites in Mediterranean stony coral are indicators of higher temperatures. Both phenomena, increased annual growth and coral bleaching, coincided with high temperatures during the summer period, which stood out compared to previous years.

### 5.2.3. Sustainable development measures

Comment whether the area is covered by an integrated coastal management plan, or bordering upon a zone under such a plan. Are there other opportunities for sustainable development provided for in the neighbouring areas?

The Slovenian coastal area is not yet covered by a specific integrated coastal management plan, the goals and conservation measures of the protected area are however mandatory in the physical planning process, including the maritime spatial plan that is under preparation. Strunjan was however taken on board as case study in a project devoted to integrated coastal management.

## 6. EXPECTED DEVELOPMENT AND TRENDS<sup>1</sup>

The foreseeable development and trends of the site do not appear in the list of common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI list, as established in the Protocol and its Annex I. Moreover, this is not always easy to assess and it is necessary to have knowledge about the site, which is not always available to all managers of protected areas; Thus, it is not obligatory to fill in the boxes in this Section 6.

On the other hand, the assessment of this foreseeable evolution and trends constitutes a dynamic supplement to the static knowledge of the site, as it appears in Sections 3, 4 and 5 above. Moreover, it is of significant importance for the definition of the objectives and the management plan of the site.

It thus appears desirable to bringing out the main outlines at least in respect to the following points:

### 6.1. EXPECTED DEVELOPMENT AND TRENDS OF THREATS TO AND PRESSURES UPON THE AREA

Deal briefly in succession with:

- The demographic development in and around the site
- The development of economic activities (other than tourism and recreation) within the area
- The development of local demand on tourism and recreation
- The development of tourism pressure on the area

Threats to nature in Landscape Park Strunjan can be seen as a result of insufficient support to traditional usage as well as insufficient investment in infrastructure to direct visitors:

- Insufficient investment in the conservation of traditional usages:
  - The threat to the salt pans due to flood risks arising from the lack of maintenance of the front and other coastal embankments, which is a basic condition for ensuring an adequate hydrological regime and the implementation of the salt production industry;
  - Abandoning traditional agricultural use (non-stimulating agricultural policy, conversion to other activities, changing the purpose of housing to holiday homes), which impacts the change in the population and the use of the respective land;
  - Inadequate management of the fishing effort.
- Mass tourism in the Park:
  - Disturbance of animals and harvest crops;
  - Abandonment of waste;
  - Noise;
  - Mass anchoring of vessels daily in parts of the Strunjan Nature Reserve, where allowed,
  - Camping and picnics using open fireplaces and stacking stones on the shoreline;
- Inappropriate traffic system, especially with regard to stationary traffic and signalling;
- Disposal of waste;
- Spread of non-native invasive species.

<sup>1</sup> By expected development and trends are meant the development, which is thought most likely to occur in the absence of any deliberate intervention to protect and manage the site.

## **6.2. POTENTIAL CONFLICTS IN THE AREA**

Make a brief statement of potential use conflicts between the users or group of users of the site.

Potential conflicts between users of the site could result from limiting encroachments and carrying out activities that guarantee the conservation aims of the Park or harmlessly impact on natural values. The new limitations relate to the activities of commercial fishing and tourism within the Nature Reserve and Natura 2000 sites. Such measures are, for example, aimed at more sustainable management of fishery resources and the prevention of anchoring by providing moorings for daily vessel mooring in the 200-metre coastal belt.

## **6.3. EXPECTED DEVELOPMENT AND TRENDS OF THE NATURAL LAND ENVIRONMENT AND LANDSCAPES OF THE AREA:** as expected arising from the evolution of the pressures

No major changes are foreseen in the terrestrial area of the park and its surroundings in terms of further evolution of pressures. The physical planning process (including tourist facilities and infrastructure) must take into account the conservation goals set in the legal text and in the management plan.

## **6.4. EXPECTED DEVELOPMENT AND TRENDS OF THE MARINE ENVIRONMENT AND SEASCAPES OF THE AREA:** as expected arising from the evolution of the pressures

No major changes are foreseen in terms of increasing pressures on the marine environment. As a direct consequence of the implementation of the management plan of the protected area, the Natura 2000 management plan as well as the Management plan for the marine Environment, further management of the small scale fisheries is foreseen as well as the installation of mooring systems that would reduce the impact of leisure boating on the benthic structures, habitat types and species.

## 7. PROTECTION REGIME

### 7.1. LEGAL STATUS (General Principles “e” and Section C-2 both in Annex I)

#### 7.1.1. Historical background of the protection of the site

The northern shore, with the sea and the inner part of Strunjan bay as well as the Stjuža lagoon and the salt pans, was included in the inventory of the most important natural heritage in Slovenia as early as 1976. In the 1980s, the whole peninsula was included in the planning documents of the municipalities of Izola and Piran as an important area of protection of natural and cultural heritage, which was followed by the adoption of a Decree proclaiming the Landscape Park in 1990. Cultural heritage, geological and geomorphological features as well as pristine coastal and marine environment and rare and protected species were at the heart of the establishment. In 2004 the legal protection was upgraded with a governmental decree that took into account the new national legislation concerning nature conservation as well as the provisions of the bird and habitat directive, and granted proper management to the protected area.

#### 7.1.2. Legal texts currently ruling the protection on the site

Enter the national conservation category, the dates and the present enforcement status of the legal instrument declaring the protection of the area. Consider both the land and the marine areas of the site. Include the full text(s) as an annex.

According to the national legislation the protected area is declared as a Landscape Park that includes also two Nature Reserves (NR Strunjan - coastal and marine; NR Strunjan-Stjuža – salt pans and lagoon) and a natural monument (a *Pinus pinea* avenue). It was established with the governmental Decree on the Landscape Park Strunjan (Official Journal of the Republic of Slovenia No. 107/04, 114/04 – popr., 83/06, 71/08, 77/10 and 46/14 – ZON-C). The Park has 13 natural values. According to the IUCN, the protected area belongs to categories IV and V. The protected area is managed by a public body, the Public Institute Landscape Park Strunjan.

**Annex 5** – The Decree on Landscape Park Strunjan is annexed to this document.

#### 7.1.3. Objectives (General Principles “a” and D-1 in Annex I)

Name in order of importance the objectives of the area as stated in its legal declaration.

The objectives of the protected area as stated in the legal act are as follows:

- the protection of natural values
- the conservation of biodiversity
- the conservation of the populations of rare, threatened, nationally and internationally protected species,
- assuring the good conservation status of the Natura 2000 habitat types and species,
- the conservation of the landscape diversity of the area and the ecological characteristics of the salt pans, the coastal lagoon and the coastline, as well as the natural processes between the supra-, - medio and infralittoral.

The vision of the Park, in accordance with the 10-year Management plan of the Landscape Park Strunjan 2018-2027, reads as follows: Landscape Park Strunjan is maintained as a unique marine protected area. Priority must be given to the preservation of the natural areas of the seashore; in the secondary habitats of the sea lagoons and salt pans, appropriate living conditions for typical plant and animal species are preserved by management measures. The use of natural resources in the Park is carried out in such a way as to preserve the mosaic landscape which is typical of the Park. A modern park infrastructure has been developed to guide visitors to the less vulnerable parts of the Park and to support sustainable tourism.

7.1.4. Indicate whether the national protection regime arises from international treaties enforced or from implementation measures of treaties (Art. 6.a in the Protocol).

Not applicable to the proposed area.

## 7.2. INTERNATIONAL STATUS

### 7.2.1. Transboundary or high seas areas

Complete this section only if the area is transboundary, totally or partially in the high sea, or within areas where the limits of national sovereignty or jurisdiction have not yet been defined. In this case, mention the modalities of the consultation (Art. 9 para. 3A in the Protocol and General Principles “d” in Annex I).

Not applicable to the proposed area.

### 7.2.2. International category

Mention if the area, or part of it, has been designated and on what date, with an international conservation category (e.g. Specially Protected Area, Biosphere Reserve, Ramsar Site, World Heritage Site, European Diploma, Natura 2000, Emerald network, etc.).

There are four special protected areas within Landscape Park Strunjan – the areas of Natura 2000, managed by the Institute in accordance with the provisions of the Natura 2000 Management programme (2015-2020). Three of these are Special Areas of Conservation (SAC), designated under the Habitats Directive, and one Special Protection Area (SPA) designated under the European Council Birds Directive. In total they comprise 48.5% of the entire Park territory. Based on the Decree on special protection areas - Natura 2000 areas (Official Journal of the Republic of Slovenia, No. 49/04, 110/04, 59/07, 43/08, 8/12, 33/13, 35/13 – amended, 39/13 – decision of the Const. C., 3/14, 21/16 and 47/18) the protected area includes the following areas: SPA SI5000031 - Strunjan, SAC SI3000238 - Strunjan salt pans and Stjuža, SAC SI3000249 - between Izola and Strunjan – cliff, SAC SI3000307 - Between Strunjan and Fiesa (partly).

## 7.3. PREVIOUS LEGAL BACKGROUND AND LAND TENURE ISSUES

Briefly mention if the area or part of it is subject to any legal claim, or to any file open in that connection within the framework of an international body. Describe the land tenure regimes within the area, and append a map if existing.

Not applicable to the proposed area.



## 7.4. LEGAL PROVISIONS FOR MANAGEMENT (Section D-1 in Annex I)

### 7.4.1. Zoning

Briefly state if the legal text protecting the area provides for different zones to allocate different management objectives of the area (e.g. core and scientific zones in both land and sea, fishing zones, visitation, gathering, restoration zones etc) and in this case the surface area in ha of these zones. Include a map as an annex

Landscape Park Strunjan is a broader protected area, which also includes a sea zone. It also comprises a two-hundred-metre sea belt and the entire area of Strunjan bay up to Pacug. There are three narrower protected areas in the Park: the Strunjan Nature Reserve, the Strunjan-Stjuža Nature Reserve and the Natural Monument Pine trees avenue.

Table: The area of Landscape Park Strunjan and the narrower protected areas within the Park.

Landscape Park Area	Area [ha]	Proportion of total area [%]
Terrestrial part of the landscape park	252.1	58.8
Marine part of the landscape park	176.5	41.2
Total area of the landscape park	428.6	100.0
<b>Narrower protected area</b>		
Strunjan Nature Reserve	124.4	29.0
- Land	29,4	-
- Marine area	95,0	-
Strunjan-Stjuža Nature Reserve	34.1	7.9
Natural Monument Pine trees avenue	1.3	0.3
Area of narrower PA	159.8	37.3
Area outside narrower PA	268.8	62.8

The central part of the Strunjan Nature Reserve includes the sea enclosed by the Bay of St. Cross, and in front of the Cape Ronek, where more strict protection arrangements apply (no-take zone). The Slovenian sea has two fishery reserves aimed at protecting fishing sources: the Portorož fishery reserve and the Strunjan fishery reserve with the salt pans. The latter is in part within the boundaries of Landscape Park Strunjan. On the basis of the Marine Fisheries Act, commercial and non-commercial fishing is prohibited in the area of the fishery reserves. However, notwithstanding the prohibition in the reserves, the harvest of winter schools of mullet is allowed, on the basis of a special permit for commercial fishing issued by the Minister competent for fishing matters.

Landscape Park Strunjan has four special protection areas of Natura 2000 (OG RS, No. 49/04, 110/04, 59/07, 43/08, 8/12, 33/13 (25/13 – amended.), 39/2013 – Decision of the Const. C.: U-I-37/10-16). Table: List of Natura 2000 areas in Landscape Park Strunjan.

Name of the Natura 2000 area	Type of protection area	Code	Total area [ha]	Area within the park [ha]	Proportion of territory within the park [%]	Proportion of total park area [%]
Strunjan	SPA	SI5000031	187.99	187.99	100	43.86
Strunjan salt pans and Stjuža	SAC	SI3000238	35.22	35.22	100	8.22
Between Izola and Strunjan, cliffs	SAC	SI3000249	55.58	29.46	53.00	6.87
Between Strunjan and Fiesa	SAC	SI3000307	14.99	5.79	38.63	1.35
<b>Total</b>			<b>243.22</b>	<b>207.90</b>	<b>85.48</b>	<b>48.51</b>

**Annex 1** - Map of the Park.

#### 7.4.2. Basic regulations

Mention the provisions, which apply to the area concerning the implementation of Article 6 of the Protocol (paragraphs a to i), Section D5 (a to d) in the Annex I and Article 17 of the Protocol.

The provisions concerning the implementation of Article 6 as well as those referring to Section D5 and Article 17 are in force in the Landscape Park either through the conservation measures defined in the legal act on the establishment of the area (e.g. scientific research activity, boating, fishing, hunting, harvesting plants, impact on cultural characteristics) either through the national legislation concerning environmental protection and nature conservation as it is the case with impact assessments and the physical planning process. Every intervention in the protected area is being assessed within an impact assessment process carried out by the responsible national authorities (e.g. Institute of the Republic of Slovenia for Nature Conservation). To be pointed out that the physical plans of the two municipalities as well as those on national level have to take into account the conservation measures and goals defined in the constitutional act.

### 7.4.3. Legal competencies

Section D4 in Annex I states that the competence and responsibility with regard to administration and implementation of conservation measures for areas proposed for inclusion in the SPAMI List must be clearly defined in the texts governing each area. Additionally Art.7.4. of the Protocol calls for the provision of clear competencies and co-ordination between national land and sea authorities, with a view to ensuring the appropriate administration and management of the protected area as a whole. Mention in which way do the legal provisions clearly establish the institutional competencies and responsibilities for the administration and conservation of the area, and if being the case, their co-ordination means, including those between land and sea authorities.

Landscape Park Strunjan was established on 2<sup>nd</sup> February 1990 by the Ordinance on the declaration of Landscape Park Strunjan (Official publication of the municipalities of Ilirska Bistrica, Izola, Koper, Piran, Postojna and Sežana, No. 3/90, 5/90, 26/90 and 16/92). It was established by the municipalities of Izola and Piran on the basis of the then applicable Natural and Cultural Heritage Act (Official Gazette of the SRS, No. 1/81 and 42/86, Official Gazette RS, No. 26/92, 75/94 – ZUJIPK and 7/99 – ZVKD). In 1999, a new basic regulation for the protection of nature in Slovenia was adopted, namely the Nature Conservation Act (Official Gazette RS, No. 96/04 – official consolidated text, 61/06 – ZDru-1, 32/08 – decision of the Const. C. and 8/10 – ZSKZ-B). On the basis of this law, the Government of the Republic of Slovenia adopted the Decree on Landscape Park Strunjan (Official Gazette RS, No. 107/04, 114/04 – amended, No. 83/06, 71/08 and 77/10).

The Decree defines the area of the Park, the territory of narrower protected areas within the Park, the rules of conduct and protection regimes, the manner of managing the Park, control in the Park and other practices related to the purpose of the Decree. The Decree also sets out development guidelines in the Park, which respect the principles of sustainable development.

On the basis of the Decree, the conservation aims for the Park are: preservation of natural values; preservation of great biodiversity; preservation of populations of endangered and internationally protected wild plant and animal species (hereinafter the “plant and animal species”); preservation of the existing volume of habitat types at the very least; preservation of the landscape with the mosaic distribution of landscape structures; preservation of the ecological characteristics of the salt pans, the lagoon and the seashore; and the natural processes and connections between the splash zone, intertidal zone and the infralittoral.

In 2008, the amended Decree (Official Gazette RS, No. 71/08) stated that the Government of the Republic of Slovenia would establish a Public Institute for the management of the Park. The Public Institute Landscape Park Strunjan was established at the end of 2008 by a Resolution Establishing the Public Institute Landscape Park Strunjan (Official Gazette RS, No. 76/08 and 100/08) which began to operate on 1<sup>st</sup> January 2009. In the area of the Park the Public Institute carries out public services in the field of protection of nature, manages databases related to the Park within the framework of public powers, and carries out direct nature protection supervision in the area of the Park.

**Annex 5** - The Decree on Landscape Park Strunjan is annexed to this document.

Other institutions also have jurisdiction in the area of the Park:

- Warden Services of the Municipality of Izola and the Municipality of Piran;
- Police of the Municipality of Piran and the Municipality of Izola;
- Agricultural, construction, environmental, and forestry inspections;
- Slovenian Maritime Administration.

#### 7.4.4. Other legal provisions

Describe any other relevant legal provisions, such as those requiring a management plan, the establishment of a local participation body, binding measures for other institutions or economic sectors present in the area, allocation of financial resources and tools, or any other significant measures concerning the protection and management of the area or its surrounding zones.

The Nature Conservation Act and the Decree on Landscape Park Strunjan are the legal basis for adopting the Management Plan of Landscape Park Strunjan. The Management Plan is the fundamental legal basis for the development of the protected area, which is taken into account in special planning for the municipalities of Piran and Izola and the use of environmental resources. It also regulates other activities in the area of the Park, which relate to tourism, events, cultural heritage, and so on, for which the Public Institute Landscape Park Strunjan issues opinions and guidelines.

The Decree on Landscape Park Strunjan stipulates that the Government of the Republic of Slovenia establishes a Public Institute for its management, which must consist of the Institute's council, a scientific council and a director. The organization of the Institute is specified in more detail in the Government's Resolution Establishing the Public Institute Landscape Park Strunjan (Official Gazette RS, No. 76/08 and 100/08).

The Resolution Establishing the Public Institute Landscape Park Strunjan stipulates that the founder provides to the Institute the funds for carrying out public services and implementing public powers on the basis of an annual contract concluded between the competent Ministry and the Institute. For this purpose, each year the Institute prepares a work programme, a financial plan, an investment plan and the Institute's Annual Report; after adopting them at the Institute's council, they are submitted for confirmation to the competent Ministry – the Ministry of the Environment and Spatial Planning.

## **8. MANAGEMENT**

Through the General Principles, para. (e) in the Annex I, the Parties agree that the sites included in the SPAMI List are intended to have a value as examples and models for the protection of the natural heritage of the region. To this end, the Parties ensure that sites included in the List are provided with adequate legal status, protection measures and management methods and means.

### **8.1. INSTITUTIONAL LEVEL**

#### **8.1.1. Authority/Authorities responsible for the area**

For the management of Landscape Park Strunjan the Government of the Republic of Slovenia established a Public Institute consisting of the Institute's council, a scientific council and a director. The organisation of the Institute is specified in more detail in the Government's Resolution Establishing the Public Institute Landscape Park Strunjan (Official Gazette RS, No. 76/08 and 100/08), which began to operate on 1st January 2009, and in the Statute of the Public Institute Landscape Park Strunjan.

The Statute provides for the Institute's organization, the manner of work, the Institute's bodies, their competences, the decision-making method in the individual bodies of the Institute, and other issues important to the performance of activities and the operation of the Institute in accordance with the law and the Resolution Establishing the Public Institute Landscape Park Strunjan.

The founder of the Institute is the Republic of Slovenia, represented by the Government of the Republic of Slovenia.

Institute's name: Javni zavod Krajinski park Strunjan / Public Institute Landscape Park Strunjan

Headquarters: Strunjan 152, 6320 Portorož.

The Institute is a non-profit legal entity.

The Institute's bodies are:

- the Institute's Council,
- the Scientific Council, and
- the Director.

### 8.1.2. Other participants in the management body

Such as other national or local institutions, as stated in Section D6 in Annex I.

The Institute's Council is the highest management body.

The Council of the Institute consists of nine members, namely:

- Five representatives of the founder, of which the founder appoints two at the nomination of the Ministry responsible for nature conservation, and one each at the nomination of the Ministry responsible for culture, the Ministry responsible for agriculture and forestry, and the government office responsible for structural policies and regional development;
- One representative of the Institute's employees, elected by the employees from all the people employed at the Institute;
- Three representatives of the Park's local communities, of which the municipality of Izola appoints one and the municipality of Piran two, one of whom is at the nomination of the local community in Strunjan.

The term of the members of the Institute's Council is four years. After the expiration of the term, a member of the Council may be reappointed or re-elected.

The Director directs and organizes the work and operations of the Public Institute, presents and represents the Public Institute, and is responsible for the legality and excellence of the Institute's work.

### 8.1.3. Participants in other committees or bodies

Such as a scientific committee, or a body of representatives from the local stakeholders, the public, the professional and non-governmental sectors, as in Sections B4-b and B4-c in Annex I.

The scientific authority of the Institute is the Scientific Council.

The Institute's Scientific Council consists of the Director, two experts from the Institute's employees, and two external experts. The two experts from the Institute's employees and the two external experts are appointed onto the Institute's Scientific Council, where one external expert is appointed at the nomination of the Institute of the Republic of Slovenia for Nature Conservation.

The term of the members of the Scientific Council is four years.

### 8.1.4. Effectiveness

As stated in Section B4 of Annex I, assess as very low, low, moderate, satisfactory, very satisfactory, and comment as needed on the following aspects:

#### a) Effectiveness of the co-ordination, where existing:

The coordination between the different bodies involved in the management of the area as well as the coordination and collaboration of the management body with the Ministry of Environment is efficient and can be evaluated as satisfactory.

#### b) Quality of involvement by the public, local communities, economic sectors, scientific community:

It is certainly satisfactory the involvement of the public, the local the scientific community. More involvement would be needed from the economic sectors, more precisely from tourism.

## 8.2. MANAGEMENT PLAN (as set out in D7 of Annex I)

### 8.2.1. Management Plan

State if there is a management plan (MP) and in this case include the document as an annex. In the absence of a MP, mention if the main provisions governing the area and the main regulations for its protection are already in place and how (D7 in Annex I) and if the area will have a detailed management plan within three years (D7 in Annex I).

On the basis of the Nature Conservation Act and the Decree on Landscape Park Strunjan, the Government of the Republic of Slovenia adopted the Decree on the Management Plan of Landscape Park Strunjan for the period 2018-2027 on 28th February 2019.

**Annex 6** - The summary of the Management Plan of Landscape Park Strunjan for the period 2018-2027 is annexed to this document.

### 8.2.2. Formulation and approval of the Management Plan

Mention how the MP was formulated, e.g. by an expert team and/or under consultation and/or participation with other institutions or stakeholders. State the legal status of the MP, whether it is officialized, and how, and if it is binding for other institutions and sectors involved in the area.

In accordance with the Decree, the Public Institute prepared a proposal for the Management Plan in collaboration with an external consultant, the Institute of the Republic of Slovenia for Nature Conservation, the Institute for the Protection of Cultural Heritage of Slovenia, local communities and other stakeholders.

The Public Institute obtained the position of the Park's local communities with regard to the Management Plan, carried out a public hearing, and took adequate consideration of the opinions, positions and remarks of the process.

The harmonized proposal of the Management Plan was confirmed by the Institute of the Republic of Slovenia for Nature Conservation with a final expert opinion on the acceptability of the Management Plan, and then it was confirmed by the Institute's Council. The Public Institute then sent it to the Ministry of the Environment and Spatial Planning which, after intersectoral coordination, sent it to the Government of the Republic of Slovenia for adoption.

The adopted annual Management Plan of Landscape Park Strunjan is the fundamental legal basis for the development of the protected area, which is taken into consideration in special planning and the use of natural resources. In order to implement the objectives set out in the Management Plan, intersectoral cooperation is defined, for example, with the following institutions: the Institute of the Republic of Slovenia for Nature Conservation, the Institute for the Protection of Cultural Heritage of Slovenia, the Inspectorates of the Republic of Slovenia, the Agency of the Republic of Slovenia for the Environment, the Slovenian Water Agency, the Slovenia Forest Service, the Ministry of Agriculture, Forestry and Food, and the Slovenian Maritime Administration.

### 8.2.3. Contents and application of the Management Plan

State the degree of detail in the MP by entering YES or NO in the following list of potential contents, and assess the degree of implementation of the MP by using the 0-1-2-3 score on the right hand side:

	Existing in MP		Degree of application			
	YES	NO	0	1	2	3
Detailed management objectives	<b>YES</b>	NO	0	1	2	<b>3</b>
Zoning	<b>YES</b>	NO	0	1	2	<b>3</b>
Regulations for each zone	<b>YES</b>	NO	0	1	<b>2</b>	3
Governing body(ies)	<b>YES</b>	NO	0	1	2	<b>3</b>
Management programmes as:						
Administration	<b>YES</b>	NO	0	1	2	<b>3</b>
Protection	<b>YES</b>	NO	0	1	2	<b>3</b>
Natural resource management	<b>YES</b>	NO	0	1	2	<b>3</b>
Tourism and Visitation	<b>YES</b>	NO	0	1	2	<b>3</b>
Education and Training	<b>YES</b>	NO	0	1	2	<b>3</b>
Research and Monitoring	<b>YES</b>	NO	0	1	2	<b>3</b>
Services and Concessions	<b>YES</b>	NO	0	<b>1</b>	2	3
Fund raising activities	<b>YES</b>	NO	0	<b>1</b>	2	3
Periodic revisions of the MP	<b>YES</b>	NO	0	1	2	<b>3</b>

### 8.3. PROTECTION MEASURES

By Art. 6 of the Protocol the Parties agree to take all the necessary protection measures required for the conservation of the area, particularly the strengthening the application of the other Protocols to the Convention, and through the regulation of any other activity likely to harm the natural or cultural value of the area, such as economic, recreation or research activities. As per Section D2 in Annex I, the protection measures must be adequate to the site objectives in the short and long term, and take in particular into account the threats upon it.

#### 8.3.1. Boundaries and signing

Briefly, state if the boundaries of the area and its zones are adequately marked in the field, both on land, in the sea, and at the principal points of access.

In the field, the area of the Park is marked in accordance with the Rules on the marking of protected areas of valuable natural features (Official Gazette RS, No. 117/02 and 53/05). The boundaries of the Park in the sea are marked by 11 yellow buoys. The Park boundaries on land are marked in two ways:

- The park boundaries in the area of public and unclassified roads used for public road transport are marked by four roadside entry signs – information signs which comply with the Rules on traffic signs and equipment on roads;
- The boundaries of the Park in the area of the nature reserves are marked at all major entry points by information and guidance boards.



### 8.3.2. Institutional Collaboration

Name the different national and local institutions or organisations with legal responsibilities or involved in the protection and surveillance of land and sea zones, and any measures or mechanisms through which their co-ordination is pursued.

Two national institutions are mainly involved in the protection and surveillance over the implementation of the conservation measures – the Institute of the Republic of Slovenia for Nature Conservation and the Institute for the Protection of Cultural Heritage of Slovenia. Both are empowered to issue legally binding opinions and permits concerning interventions and activities in the protected area.

### 8.3.3. Surveillance

Consider the adequacy of the existing protection means (human and material), and your present ability to survey land and sea uses and accesses

The Public Institute Landscape Park Strunjan has established a nature conservation surveillance service, which has an annual work plan of 1000 hours of direct surveillance in the field. The Institute has one vessel in order to carry out surveillance at sea, and an electric scooter for land surveillance.

Due to its coastal position, and in particular during summer, Landscape Park Strunjan is subject to several stresses. All outstanding factors endangering natural values are of anthropogenic origin, i.e. dumping of waste, noise, walking outside authorized trails, stacking of stones, camping and making fires, poaching, and the introduction of invasive non-native species. This suggests that surveillance of nature conservation must be carried out even more consistently in the field, since only an active presence can help to raise people's awareness and prosecute violations.

### 8.3.4. Enforcement

Briefly, consider the adequacy of existing penalties and powers for effective enforcement of regulations, whether the existing sanctions can be considered sufficient to dissuade infractions, and if the field staff is empowered to impose sanctions.

Direct surveillance in the field involves control over compliance with the prohibitions provided by the Nature Conservation Act (Official Gazette RS, No. 96/04 – official consolidated text) and the provisions from the area of nature protection. It is carried out by nature protection supervisors employed by the Institute, who are specially trained for this and have the powers of the Minister competent for nature conservation. For this purpose, the supervisors have passed an exam for environmental supervisors and an exam for conducting and decision-making in the minor offences procedure.

Tasks of direct surveillance include: monitoring of the situation, control over the implementation of protection regimes, establishing the facts in violations of the prohibition from the Nature Conservation Act and the rules adopted on the basis thereof, taking into account the rules of conduct and the protection regimes set out in the Decree on Landscape Park Strunjan.

## 9. AVAILABLE RESOURCES

### 9.1. HUMAN RESOURCES (Art. 7.2.f in the Protocol)

#### 9.1.1. Available staff

Assess the adequacy of the human resources available to the management body, in number of employees and training level, both in central headquarters and in the field. Indicate if there are staff training programmes.

The management body (headquarters & field) accomplishes its mission with 6 employees (5 fulltime and 1 part-time), two with master degrees and the other four with university degrees from different fields: law, human resources, geology, ecology, biochemistry, tourism.

Employment situation at the Public Institute Landscape Park as of 1<sup>st</sup> January 2019:

Post Title	No. of employees as of 1 Jan 2019	Type of contract	Source of financing
Director	1	Fixed-term	State budget
Senior Environmental Protection Consultant	1	Indefinite duration	State budget
Environmental Protection Supervisor I	1	Indefinite duration	State budget
Environmental Protection Supervisor II	0.2	Indefinite duration	State budget
Environmental Protection Supervisor II	1	Indefinite duration	Own resources (95%), State budget (5%)
Environmental Protection Supervisor III	0.5	Fixed-term	Project resources (85 %), own resources (15 %)
Environmental Protection Supervisor	0.5	Fixed-term	Project resources (85 %), own resources (15 %)
TOTAL EMPLOYEES:	5.2		

Employees are trained at expert consultations, seminars, workshops, excursions, and so on. For many years, Landscape Park Strunjan has been collaborating with the international organization MedPAN (a network of marine protected area managers in the Mediterranean) for the exchange of good practice in the management of marine protected areas, where annual training courses are organized (regular and within the framework of projects).

In addition to the regular employees, the Institute has on average 1-3 workers with lesser skills through special employment programmes, who take care of the arrangement and maintenance of equipment, and the cleanliness of the trails and the natural seashore.

### 9.1.2. Permanent field staff

Answer YES or NO on the current existence of the following FIELD staff categories. If YES, enter the number of staff either permanent or part-time in that category, and evaluate on a 0-1-2-3 score (0 is low, 3 is high) the adequacy of their training level.

	YES/NO	NUMBER Permanent/Part-time	ADEQUACY OF TRAINING LEVEL
Field Administrator	<b>YES 1</b> NO	<b>Permanent/Part-time</b>	0 1 <b>2</b> 3
Field Experts (scientific monitoring)	<b>YES 1</b> NO	<b>Permanent/Part-time</b>	0 1 <b>2</b> 3
Field Technicians (maintenance, etc)	<b>YES 2</b> NO	Permanent/ <b>Part-time</b>	0 <b>1</b> 2 3
Wardens	<b>YES 1</b> NO	Permanent/ <b>Part-time</b>	0 1 2 <b>3</b>
Of which marine wardens	<b>YES 1</b> NO	<b>Permanent/Part-time</b>	0 1 2 <b>3</b>
Guides	<b>YES 1</b> NO	<b>Permanent/Part-time</b>	0 1 <b>2</b> 3
Director			

### 9.1.3. Additional Support

Briefly, describe if the area currently has the advantage of other external human resources in support of its objectives, either from other national or local institutions, volunteer programmes, non-governmental organisations, academic or international organisations. Mention if there are any significant changes in prospect for the near future.

In order to carry out its tasks, the Public Institute connects with various educational institutions and other professional institutions, in particular the University of Ljubljana and the University of Primorska, the National Institute of Biology and Piran Marine Biology Station, the Agricultural Institute of Slovenia, the Institute for Water of the Republic of Slovenia, the Society for Bird Watching and Surveying, and the Slovenian Marine Mammal Society – Morigenos. In organizing clean-up operations, the Institute cooperates with local associations and other non-profit organizations.

## 9.2. FINANCIAL RESOURCES AND EQUIPMENT

By Art. 7 in the Protocol, the Parties agree to adopt measures or mechanisms to ensure the financing of the specially protected areas (Art.7.2.d), and the development of an appropriate infrastructure (Art.7.2.f). The General Principles para. "e" in the Annex I call upon the Parties to provide the areas with adequate management means.

### 9.2.1. Present financial means

Note if the basic financing is ensured: a core funding for basic staff, protection and information measures. Who provides this core funding? Briefly assess the degree of adequacy of the present financial means for the area, either low, moderate, satisfactory; e.g. the implementation of the management plan, including protection, information, education, training and research.

Financial resources for the implementation of activities of the Public Institute Landscape Park Strunjan come from the following sources of funding:

1. Public Service Funds – means for performing a public service from the budget line of the Republic of Slovenia for public services from the Ministry of the Environment and Spatial Planning;
2. Project Funds – means for implementing projects directly from the EU and other sources;
3. Own Resources – the Institute's own revenue from guided tours and marketing of traditional mooring places for vessels.

The financial resources are specified in the annual programmes of the Public Institute's work, based on the annual starting points of the Ministry of the Environment and Spatial Planning. Regardless of the source of funding, it is stipulated that the allocation of funds for salaries from the public service follows the instructions of the Ministry of the Environment and Spatial Planning, so that 70% of funds are dedicated to nature conservation and administration and common management tasks, 20-25% for visits, and 5-10% for sustainable development.

From its establishment until the present day, the Institute has expanded its staff; the operating budget, with the exception of satisfactory project funds, is rather moderate. In general, it is considered that funds for salaries are covered from all three sources of finance, and regular material costs are from public service funds. The project funds are used for research, education, information activities, purchase of equipment and other infrastructure. The Institute's own funds are sufficient to cover the salary of one employee, its own contribution to project funding, and the maintenance of mooring places.

### 9.2.2. Expected or additional financial sources

Briefly describe any alternative sources of funding in use or planned, and the perspectives for long-term funding from national or other sources.

No alternative sources of funding planned at the moment with the already existing services (guiding, moorings) and no major changes foreseen concerning the long-term funding from national sources.

### 9.2.3. Basic infrastructure and equipment

Answer YES or NO to the following questions, and if YES, assess with a score of 1-2-3 (1 is low, 3 is high) the adequacy of the basic infrastructure and equipment.

	YES/NO	ADEQUACY			
Office and/or laboratory in the field	YES	0	1	2	3
Signs on the main accesses	YES	0	1	2	3
Guard posts on the main accesses	NO	0	1	2	3
Visitors information centre	YES	0	1	2	3
Self guided trails with signs	YES	0	1	2	3
Terrestrial vehicles	YES	0	1	2	3
Marine vehicles	YES	0	1	2	3
Radio and communications	NO	0	1	2	3
Environmental awareness materials	YES	0	1	2	3
Capacity to respond to emergencies	YES	0	1	2	3

The premises of the Park, located in the area of the salt pans, include a tiny visitor centre and the offices with due equipment (computer, mail etc.). The other equipment includes electric scooter, boat, diving equipment, camera, telescope, binoculars, moorings, self-guided thematic trail, publications, information boards.

### 9.3. INFORMATION AND KNOWLEDGE

By Section D3 of Annex I, the Parties agree that the planning, protection and management of a SPAMI must be based on an adequate knowledge of the elements of the natural environment and of socio-economic and cultural factors that characterize each area. In case of shortcomings in basic knowledge, an area proposed for inclusion in the SPAMI List must have a programme for the collection on the unavailable data and information.

#### 9.3.1. State of knowledge

a) Assess the general state of knowledge of the area.

0	1	2	3
---	---	---	---

b) Briefly describe the extent of knowledge of the area, considering at least specific maps, main ecological processes, habitat distribution, inventories of species and socio-economic factors, such as artisan fishing.

Due to the exceptional natural conditions, the northern seashore, with the inner part of Strunjan bay and the Stjuža lagoon and the salt pans, was included in the Inventory of the most important natural heritage in Slovenia as early as 1976.

In 2004, a comprehensive research study was carried out on the habitat types of the salt pans and the fauna in the area of the Strunjan salt pans and lagoon, where an exact inventory of the epifauna and infauna was carried out.

In 2007, the mapping of marine habitat types and an inventory of species in the area of the Strunjan Nature Reserve was carried out. The inventory of habitat types was carried out on the basis of the defined criteria from the Draft Reference List of habitat types for the selection of sites to be included in the national inventories of natural sites of conservation interest (Barcelona Convention).

In 2008, an environmental protection assessment of Strunjan Cliffs was carried out on the basis of the latest ecological research, mapping of habitat types and historical sources.

**Annex 7** - List of publications concerning the site. In **Annex 7.1 - 7.5** are five most important research studies contributing to knowledge of this area.

### 9.3.2. Data collection

Describe and assess the adequacy of any programme and activities to collect data in the area.

So far, the Public Institute has requested the production of two extensive studies under the project funds. In the Climate Change and Management of Protected Areas (Climaparks) project, indicators were established for assessing the impact of climate change on marine habitats, flora and fauna, the study of the phenomenon of tropicalization and bioinvasion, and the presentation of the possible effects of climate change on marine biodiversity. In the framework of the project Sustainable Management of Artisanal Fisheries in the Strunjan Nature Reserve, a research study was carried out on fish communities in the seawater of Landscape Park Strunjan.

A research programme, which provides for additional ecological and other research that is important for improving the quality of the management of the area, is planned within the Management Plan for the next decade (2018-2027). The planned key research is, for example: research into the accidental catch of seabirds and sea turtles; an exploration of the woods on the Cape Ronek; a study of the erosion of the flysch rocks of the Strunjan cliffs; research on the preservation of dry meadows; research into biodiversity in agriculture; the determination of the carrying capacity of the Park; and research into landscape diversity. In addition, further research into biodiversity in the area of the Strunjan salt pans and the lagoon is planned, including an inventory and comparison of the situation with previous research data.

The data that the Institute obtains within the framework of monitoring of the situation in the Park can be divided into:

- General monitoring of biodiversity (land and marine flora and fauna, and non-native invasive species);
- Detailed monitoring of Natura 2000 qualification species (6) and habitat types (8);
- Monitoring visits (stationary traffic, number of visitors).

### 9.3.3. Monitoring programme

Section D8 in Annex I states that to be included in the SPAMI List, an area will have to be endowed with a monitoring programme having a certain number of significant parameters, in order to allow the assessment of the state and trends of the area, as well as the effectiveness and protection and management measures, so that they may be adapted if need be (indicators may, for instance, supply information about species status, condition of the ecosystem, land-use changes, extraction of natural resources -sand, water, game, fish-, visiting, adherence to the provisions of the management plan, etc.).

a) Is there a monitoring programme?

<b>YES</b>	<b>NO</b>
------------	-----------

b) If NO, are there plans to start one, and when?

--

c) If YES, assess as low, medium, satisfactory, its adequacy and present level of development.

Medium
--------

d) If YES, who is/are carrying out the monitoring programme?

The Public Institute Landscape Park Strunjan and external contractors.
--

d) If YES, briefly describe how the monitoring programme will be used in reviewing the management plan.

The Public Institute regularly monitors progress in the implementation of the Management Plan and reports on this:

- Every year to the competent Ministry within the framework of reporting on the implementation of the annual work programme;
- In 2023 and 2028, to the competent Ministry in a comprehensive report on the implementation of the Management Plan.

The Management Plan lists indicators and target values (in 2022 and 2027) for assessing the effectiveness of the implementation of the Management Plan, which are obtained from the research programme data and the situation monitoring programme described in 9.3.2.

Landscape Park Strunjan is involved in the Marine Environmental Monitoring Program within the national Management Plan with the Marine environment 2017 – 2021. There are several objectives that the Park management is following for achieving or maintaining a good status of the marine environment from Marine Directive 2008/56/ES, taking into account the intended targets for individual marine quality descriptors.

**CONTACT ADDRESSES** (name(s), position(s) and contact address(es) of the person(s) in charge with the proposal and that compiled the report)

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**10. SIGNATURE(S) ON BEHALF OF THE STATE(S) PARTY/PARTIES MAKING THE PROPOSAL**



Robert Turk  
Slovenian SPA&BD Focal Point

**11. DATE**

15. 4. 2019





**ANNEX IV:**

**Presentation report of the “Cetaceans migration corridor in the Mediterranean”  
proposed by Spain for inclusion in the SPAMI List**



**ANNOTATED FORMAT FOR THE PRESENTATION  
REPORTS FOR THE AREAS PROPOSED  
FOR INCLUSION IN THE SPAMI LIST**



## OBJECTIVE

The objective of this Annotated Format is to guide the Contracting Parties in producing reports of comparable contents, including the information necessary for the adequate evaluation of the conformity of the proposed site with the criteria set out in the Protocol and in its Annex I (Common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List).

## CONTENTS

The presentation report shall include the following main information on: (i) identification of the proposed protected area (ii) site description (iii) its Mediterranean importance (iv) the activities in and around the area and their impacts (v) legal status (vi) management measures (vii) human and financial resources available for the management and the protection of the site.

## SUBMISSION OF REPORTS

The reports should be submitted to the RAC/SPA two months before the meeting of National Focal Points for SPA in English or in French.

Dossiers should be compiled on A4 paper (210 mm x 297 mm), with maps and plans annexed on paper with a maximum size of an A3 paper (297 mm x 420 mm). Contracting Parties are also encouraged to submit the full text of the proposal in electronic form.

The requested **annexes** should be submitted on paper and, if possible, also in electronic form. They are the following:

- Copies of legal texts:
  - Law 42/2007 on Natural Heritage and Biodiversity <https://www.boe.es/buscar/act.php?id=BOE-A-2007-21490>
  - Law 41/2010 on marine protection: [http://www.boe.es/diario\\_boe/txt.php?id=BOE-A-2010-20050](http://www.boe.es/diario_boe/txt.php?id=BOE-A-2010-20050)
  - Law 21/2013 on impact assessment: <https://www.boe.es/buscar/act.php?id=BOE-A-2013-12913>
- Copies of planning and management documents: see cartographic map attached
- Maps: administrative boundaries, zoning, land tenure, land use, and distribution of habitats and species, as appropriate:
  - In the following link you can find the cartographic distribution of habitats in the Mediterranean Biogeographic Region, reported to the Habitats Directive art 17 (please note this information regards to three Biogeographic regions, but not just to the area proposed as SPAMI): [https://www.miteco.gob.es/es/biodiversidad/temas/espacios-prottegidos/red-natura-2000/rn\\_cons\\_seguimiento\\_Art17\\_inf\\_2007\\_2012.aspx](https://www.miteco.gob.es/es/biodiversidad/temas/espacios-prottegidos/red-natura-2000/rn_cons_seguimiento_Art17_inf_2007_2012.aspx)
- Existing inventories of plant and fauna species:

The Spanish Inventory of Marine Habitats and Species

(<https://www.miteco.gob.es/es/costas/temas/proteccion-medio-marino/biodiversidad-marina/habitats-especies-marinos/inventario-espanol-habitats-especies-marinos/inventario-habitats-especies.aspx>) includes the following information regarding the whole Spanish biodiversity:

- Spanish Inventory of Marine Species:
- Spanish Inventory of Marine Habitats:

- Photographs, slides, films/videos, CD-ROMs: not available yet, since the proposed area is in open waters
- List of publications and copies of the main ones concerning the site:
  - Summary of “Proyecto de identificación de las áreas de especial interés para la conservación de los cetáceos en el Mediterráneo español (Proyecto Mediterráneo)”: [https://www.miteco.gob.es/es/costas/publicaciones/bm\\_em\\_ce\\_proy\\_mediterraneo\\_tcm30-161266.pdf](https://www.miteco.gob.es/es/costas/publicaciones/bm_em_ce_proy_mediterraneo_tcm30-161266.pdf)

**N.B.:** All the following sections have to be in the report submitted, even those sections or elements that do not apply to the proposed area. Where that is the case, please put “not applicable to the proposed area”.

## 1. AREA IDENTIFICATION

### 1.1. COUNTRY/COUNTRIES (in the case of transboundary areas)

Spain

### 1.2. ADMINISTRATIVE PROVINCE OR REGION

Marine Subdivision Levantino-Balear.

### 1.3. NAME OF THE AREA

Cetaceans migration corridor in the Mediterranean

### 1.4. GEOGRAPHIC LOCATION

Describe its geographical boundaries, e.g. rivers, roads, geographical or administrative boundaries (do not describe the co-ordinates here; please make a separate annex with a map and a description of geographical co-ordinates as stated in the legal declaration of the area).

The area proposed under the figure of SPAMI is a continuous strip of territorial waters of Spanish jurisdiction, about 85 km in average width, located in Levantine-Balearic Marine Subdivision.

Its Western limit runs parallel to the coast of Catalonia and Valencia, and the Eastern runs parallel to the Balearic archipelago. Its Northern bounds is within the Spanish jurisdiction waters in the Gulf of Leon (Cape Creus), in Gerona; and its Southern bounds from Cape of the Nao in Alicante in the West, and the Balearic coasts in the East.

The distance to Cape Creus is about 30 km away, and it gets to up to 45 km away to the Catalan coast, and then just 16 km away from the Valencian coast in front of Cape of the Nao. Regarding the Balearic coast, the average distance from the limit of the SPAMI to the coast of Mallorca Island is 30 km, and bordering Ibiza along the isobata 900-1000 m, about 18 km away.

### 1.5. SURFACE OF THE AREA (total)

46.262,82 km<sup>2</sup> .

462.628 Ha

### 1.6. LENGTH OF THE MAIN COAST (Km)

Catalonia Autonomous Community:	575 km
Valencia Autonomous Community:	300 km
Balearic Islands Community:	350 km
Total:	1.350 km



## 2. EXECUTIVE SUMMARY (maximum 3 pages)

Supply a summary of the information contained in sections 3 to 9.

The Ibiza channel and the slope area off the coasts of Valencia and Catalonia constitute a migratory corridor used by many species of cetaceans in the western Mediterranean; it is especially used by the fin whale in its migration from breeding areas on the African coasts of Mid Mediterranean, to the feeding areas in the Gulf of Leon and the Ligurian Sea. It is estimated that around 3,500 fin whales migrate through this strip of water, which makes it a critical habitat for the conservation of the species.

Globally, it is a deep water area in whose central part is located an ocean front that has associated a very high primary production, which conditions an abundant availability of food for cetaceans. It is also an area of intense fishing activity. The striped dolphin census show that in this area are the highest densities along the Iberian coast, and that the region houses a population of about 6,000 individuals.

In addition, in this sector we can point out that, despite having registered a low density of the Risso's dolphin, the number of recorded sightings indicates that it is a regular species in this area.

Finally, it is important to highlight the diversity of habitats and seabed that can be found in the area. There are rich and varied areas, such as the bottoms around the Columbretes Islands, those of Valencia's Fosa in the Gulf of Valencia, or the canyons of the continental shelf of the Gulf of León, where most species have been found.

Therefore, the inclusion of this corridor in the established List of Specially Protected Areas of Mediterranean Importance (SPAMI's List) under Barcelona Convention, will ensure the protection of the habitat and migration area of several species of cetaceans in the western Mediterranean.

## 3. SITE DESCRIPTION

### 3.1. TYPOLOGY OF THE SITE

3.1.1. Terrestrial surface, excluding wetlands (ha):

0

3.1.2. Wetland surface (ha):

0

3.1.3. Marine surface (Sq. Km): Marine internal waters

0

Territorial sea

46.262,82 km<sup>2</sup>

High sea

0

### 3.2. MAIN PHYSICAL FEATURES

#### 3.2.1. Geology/Geomorphology

Give a brief description of: (i) geological aspects (lithologic and tectonics); (ii) processes of sedimentation and erosion observable in the area; (iii) coastal geomorphology and (iv) island system. Indicate bibliographical sources.

We can distinguish in the corridor three different geological structures from North to South:

1. Gulf of León area:

This is the northern section, which runs along the Gulf of Leon, from the Lacaze-Duthiers canyon to south of Cambrils. The corridor occupies the open areas of the canyons of Lacaze-Duthiers and Creus. On the banks of both canyons there stand out many rocky escarpments. To the south it occupies all the Canyon of Palamós and part of the Canyon of Blanes. These canyons descend sharply towards the bathial zone, up to 2,600 meters in the deepest areas of the strip, which are already part of the Balearic Promontory. Only in the zones of the canyons the rocky substrate emerges or is covered with sediments of sludge, constituting the rest of deep zones a rocky soil.

2. Ebro Delta area:

The corridor occupies here part of the continental shelf from the Ebro Delta to the Fosa de Valencia. The sedimentary contributions of the Ebro over time explain the presence of this continental shelf particularly wide, which in some points extends up to about 70 km from the coast. The margin of this wide platform presents a very intricate profile, descending towards the slope in a continuous series of submarine canyons with numerous rocky outcrops. The eastern part of this area runs through the Balearic Promontory.

The soils North of Tarragona coast are formed by rocks, but become sedimentary sludge in the eastern part, and from the Delta of the Ebro, sandy. Further South, the rock disappears, alternating soils formed by mud and sands. The corridor overlaps with the marine Special Protection Area (SPAs) for birds "Delta de l'Ebre-Illes Columbretes", a large marine space comprising the whole of the platform and part of the continental slope under the direct influence of the river Ebro. This SPA is partially overlapped in the East part of the proposed SPAMI

South of this zone of platform area, 50 km off the coast, emerges the archipelago of Columbretes, formed by four islands and several rocks, all of them of volcanic origin. These islands constitute a suitable habitat for many coastal species, being an area with a great marine diversity. As this area has already been protected under Barcelona Convention as the Columbretes Islands SPAMI, in order not to overlap the same type of figure one over the other, this area has been cut off from the Cetacean Migration Corridor SPAMI.

We shall point out in this section a promontory located to the southwest of the archipelago of the Columbretes, called Pleasure of the High Bar, to -25 meters of depth.

In front of the city of Valencia the continental shelf becomes narrower, between 10 and 18 km. approximately. The bank there presents a smaller slope than the platform of Castellón. Even so, the depth gradient is high. This area is known as the Valencia Trench; its depth gradient, together with the contributions of Turia and Júcar rivers makes it a very productive area. It is also important to highlight the existence of the Valencia Albufera (lagoon).

Also in this area are two seamounts: the Cresques Knoll and the Stony Sponge Seamount, located in the northern sector of the Eivissa Channel, almost 30 nautical miles from Eivissa Island

### 3. Levante area:

From la Fosa de Valencia the platform begins slowly to narrow to the Cabo de la Nao, and the Corridor also approaches the coast. Between Cabo de la Nao and the west coast of the island of Ibiza, there is a natural narrowing called the Ibiza Channel. This channel, with depths that do not exceed 800 meters, forces to concentrate many of the species in the zone, cetacean as well as marine turtles or fish, that migrate seasonally or move in front of the coasts of Spain. Marine floor is made by sludge and some areas of sand.

In the Ibiza channel we find the Special Protection Area called “Plataforma-talud marinos Cabo de la Nao”, which includes the continental shelf edge and slope running from Cullera to Alicante; it runs parallel to the coastline and its closest point is the Cape Nao. This SPA is partially overlapped with the southwest end of the proposed SPAMI.

The bottoms are formed by sludge and some scattered rocks and sand.

3.2.2. Other interesting physical features: Such as hydrodynamics, volcanic formations, caves, underwater formations, etc.

Hydrodynamics :

The marine stream model of the Western Mediterranean is cyclonic, with two permanent currents: the North Current, coming from the Gulf of Leon, which runs southwards parallel to the coast of the Valencia; and the Algerian stream, which runs northwards from the coast of Africa.

The Northern Stream coming through the continental slope, when reaches the Ibiza Channel, continues part of it, its way to the south, and another part turns eastwards forming the current Balear Current, that also runs by the continental slope to the north of the Balearic Islands. It has also been observed a current with north direction circulating closer to the Island of Ibiza, demonstrating the existence of a great variability in the hydrology of this area.

In the intermediate depths of the Western Mediterranean, two water bodies are located: LIW (Levantine Intermediate Water), present all year round, and the winter water (Western Mediterranean Intermediate Water, WIW). All the seabed is filled by deep water of the Mediterranean Sea (Western Mediterranean Deep Water, WMDW), formed in the winter convection processes of the southern area of the Gulf of Leon and the Ligurian Sea.

The Ebro Delta area is particularly rich in food, due to a combination of factors that increase the concentration of nutrients on the surface and, therefore, the productivity. Thus, the nutrient rich water provided by the Ebro river remains in the most superficial layers and enhances the primary productivity in the area, especially in spring-summer, when the marine waters are stratified. Likewise, the Ligurian-Provencal-Catalan current creates a plateau-slope that, when colliding with the northern part of the continental shelf of the Ebro delta, generates a zone of outcrops. These are also favored by the strong winds that occur in the area, mainly towards the end of winter.

In front of the Cape of the Nao there is an area of confluence of waters of Atlantic origin, flowing from the South, and of Mediterranean origin, coming from the North. This causes the formation of important oceanic fronts and outcrop areas, especially on the continental shelf-edge.

In addition, we can find some canyons of the continental shelf of the Gulf of Leon, Cannon of Creus, Valley of San Feliú, Cannon Fonera and canyon of Palamós, among others. And rocky protrusions of the platform and the slope, such as Seamount Spartacus, and the Pleasure of the High Bar (near Columbretes islands).

3.2.3. Length of beaches (in Km), including islands:

Length of sandy beaches:

not applicable to the proposed area

Length of pebble or stony beaches:

not applicable to the proposed area

Length, height and depth of active sand-dunes:

not applicable to the proposed area

### **3.3. FRESHWATER INPUTS**

#### 3.3.1. Mean annual precipitation (in mm)

Information not available

#### 3.3.2. Main water courses (permanent and seasonal)

Not applicable to the proposed area

#### 3.3.3. Estuarine areas: Existence and brief description

Not applicable to the proposed area

#### 3.3.4. Freshwater springs: Existence and brief description, including marine offsprings

Not applicable to the proposed area

### 3.4. BIOLOGICAL FEATURES (B2, Annex I)

3.4.1. Habitats: A brief description of dominant marine and terrestrial habitats, on the basis of the habitat classifications adopted within the framework of MAP (and their coverage in ha)

The following habitat types are found within the proposed area (for which coverage area information is not available):

- IV.3.1. Hard beds and rocks of the circalittoral, with coralligenous biocenosis
- V.1. 1: Biocenosis of bathyal muds
- V.2. Biocenosis of bathyal sands,
- V.3. Hard beds and rocks of the bathyal level:
- V.3. 1. Biocenosis of deep sea corals on hard beds and rocks

In the circalittoral and rocky bathyal substrates, we find the canyons of the continental shelf of the Gulf of León, which funnel the contributions of organic matter from the surface waters and from the continental shelf, to the abyssal plains. They are essential habitats for the life cycle of some species. Some of these canyons are the following: Creus Canyon, San Feliu Valley, Fonera Canyon and Palamós Canyon, among others.

White coral reefs of cold and deep waters, as well as other benthic invertebrates, are species that play a major role in the rocky escarpments at the banks of canyons and at the bathyal substrate.

In the sedimentary bathyal biocenosis there are structures formed by leaking gases, for example in the Ibiza Channel where a pockmarks area is located, as well as on the slope of the Gulf of Leon.

On rocky protrusions of the continental shelf and slopes may exist small yellow coral reefs. Some of these promontories are, for example, Seamount Spartacus, and the Pleasure of the High Bar (near Columbretes Islands).

In addition to these habitats, the Spanish Inventory of Habitats and Marine Species includes as a specific habitat the "water column" that is particularly relevant in this proposed SPAMI, which is precisely created for the protection of species of this habitat.

## 3.4.2. List of regionally important species (flora and fauna) (B-2a, Annex I)

List here ONLY those species protected by international agreements, particularly those marine species included in Annex II of the Protocol, which are present in the area. Any other species may be listed if it is clearly considered of regional importance given its high representation in the area. Display the species list under the headings Marine Plants, Terrestrial Plants, Marine Invertebrates, Fish, Amphibians and Reptiles, Birds, and Mammals. For each species state: its relative abundance as Common (C), Uncommon (U) or Occasional (O), Its global status as rare (r), endemic (e) and/or threatened (t), and its status as an important resident population (R), or important for its breeding (B), feeding (F), wintering (W) or migratory passage (M)

<b>SPECIES</b>	<b>Rel. Abundance (C) (U) (O)</b>	<b>Global STATUS (r) (e) (t)</b>	<b>Local STATUS (R) (B) (F) (W) (M)</b>
<b>MARINE BIRDS</b>			
<i>Phalacrocorax aristotelis desmarestii</i>	C	T	F
<i>Hydrobates pelagicus melitensis</i>	C	T	F
<i>Calonectris diomedea</i>	C	T	F
<i>Puffinus mauretanicus</i>	C	T	F
<i>Puffinus yelkouan</i>	C	T	W
<i>Larus audouinii</i>	C	T	F
<i>Larus melanocephalus</i>	C	T	F
<i>Chroicocephalus ridibundus</i>	C	T	F
<i>Chroicocephalus genei</i>	C	T	F
<i>Larus michahellis</i>	C	T	F
<i>Larus fuscus</i>	C	T	F
<i>Sterna hirundo</i>	C	T	F
<i>Sterna sandvicensis</i>	C	T	W
<i>Sternula albifrons</i>	C	T	W
<i>Morus bassanus</i>	C	T	W
<b>MARINE MAMMALS:</b>			
<i>Megaptera novaeangliae</i>	U	T	-
<i>Balaenoptera physalus</i>	O	T	M
<i>Physeter macrocephalus</i>	C	T	R
<i>Ziphius cavirostris</i>	O	T	R
<i>Grampus griseus</i>	O	T	R
<i>Globicephala melas</i>	O	T	R
<i>Pseudorca crassidens</i>	U	T	-
<i>Delphinus delphis</i>	O	T	R
<i>Stenella coeruleoalba</i>	C	T	R
<i>Tursiops truncatus</i>	C	T	R

<b>MARINE REPTILES</b>			
<i>Caretta caretta</i>	C	T	M
<i>Dermochelys coriacea.</i>	O	T	
<i>Chelonia mydas</i>	U	T	
<b>MARINE INVERTEBRATES:</b>			
<i>Madrepora oculata</i>			
<i>Lophelia pertusa</i>			
<i>Dendrophyllia cornigera</i>			
<b>MARINE FISH</b>			
<i>Carcharias taurus</i>	O		
<i>Carcharodon carcharias</i>	O		
<i>Cetorhinus maximus</i>	C		
<i>Dipturus batis</i>	C		
<i>Galeorhinus galeus</i>	O		
<i>Gymnura altavela</i>	O		
<i>Isurus oxyrinchus</i>	O		
<i>Lamna nasus</i>	C		
<i>Leucoraja circularis</i>	C		
<i>Leucoraja melitensis</i>	C		
<i>Mobula mobular</i>	C		
<i>Odontaspis ferox</i>	O		
<i>Oxynotus centrina</i>	C		
<i>Pristis pristis</i>	O		
<i>Rhinobatos cemiculus</i>	O		
<i>Rhinobatos rhinobatos</i>	O		
<i>Rostroraja alba</i>	C		
<i>Sphyrna lewini</i>	C		
<i>Sphyrna mokarran</i>	O		
<i>Sphyrna zygaena</i>	C		
<i>Squatina aculeata</i>	C		
<i>Squatina oculata</i>	O		
<i>Squatina squatina</i>	C		

3.4.3. Flora: Describe in a few sentences the main plant assemblages significant in the area.

Not applicable to the proposed area



3.4.4. Fauna: Describe in a few sentences, which are the main fauna populations present in the area.

Biodiversity in the area is high and several species of cetaceans are present in very high densities: Striped dolphin (*Stenella coeruleoalba*), common dolphin (*Delphinus delphis*), bottlenose dolphin (*Tursiops truncatus*), Risso dolphin (*Grampus griseus*), long finned pilot whale (*Globicephala melas*), fin whale (*Balaenoptera physalus*), and even sperm Whales (*Physeter macrocephalus*).

In fact this Mediterranean region hosts a resident fin whale population, and in addition, the area concentrates these cetaceans on its migratory route from or to the Ligurian Sea, where they concentrate annually to feed in summer period.

The natural narrowing of Ibiza, between Cabo de la Nao and the west coast of Ibiza, forces all species, both cetaceans and fish, to migrate seasonally or move in front of the coasts of Spain

On the other hand, there are areas of relatively high productivity, such as the marine waters near the Columbretes Islands, where bottlenose dolphins find excellent conditions to feed and prey on a great variety of fish (hake, conger, sardines, etc.) and cephalopods (octopus, cuttlefish, squid, etc.)

The confluence of currents results in a high productivity of phytoplankton and zooplankton, which, combined with the existing wide continental shelf, leads to a high abundance of small pelagic fish, mainly sardines and anchovy, and other demersal species, which use the area to spawn. In addition, the strong salinity gradient persists throughout the year and separates the oceanic waters of greater density from those of continental origin. This limits the dispersal, on the high seas, of larvae of coastal and shelf species.

All these resources also nourish significant populations of seabirds, including sensitive and restricted species, such as the critically endangered Balearic shearwater (*Puffinus mauretanicus*), Scopoli's shearwater (*Calonectris diomedea*), European storm petrel (*Hydrobates pelagicus*), common shag (*Phalacrocorax aristotelis desmarestii*), and the Audouin gull (*Larus audouini*), among others.

The Marine SPA of the Delta of the Ebre-Illes Columbretes, partially overlain with the SPAMI, constitutes one of the most important feeding areas for seabirds in the whole Mediterranean Sea. This is the case both for breeding birds on the adjacent coasts (Delta del Ebro, Albufera de Valencia, Columbretes islands and other relevant areas), and for birds coming from more distant colonies, such as the Balearic Islands, which is the case of species with great capacity of displacement (shearwaters, European storm petrel and even Audouin's gull). Besides, the SPA is also of great importance for several species during the winter and as a migratory passage.

The Marine SPA Platform-slope of the Cabo de la Nao, also partly overlapped with the SPAMI, on the other hand, represents one of the main feeding areas for the Balearic shearwaters both during the breeding season and in winter. This area is also the second feeding zone in importance for the European storm petrel during the breeding season, in the context of the Spanish Mediterranean, and is also used intensively by other seabirds, such as the Scopoli's shearwater and the Audouin gull

Regarding sea turtles, there are records of up to four species in the Spanish Mediterranean waters: loggerhead turtle (*Caretta caretta*), leatherback turtle (*Dermochelys coriacea*), green turtle (*Chelonia mydas*) and ridley sea turtle (*Lepidochelys kempii*), the most common species being the loggerhead turtle. Through aerial censuses, some 19,000 loggerhead turtles have been estimated only for the area of the Valencian coastline and the Columbretes area, and an overall number of between 20,000 and 60,000 loggerhead turtles is estimated for the entire Spanish Mediterranean waters.

The Algerian-Balearic basin highlights as an oceanic habitat for the aggregation of juvenile and subadults turtles, and the platform areas of the Ebro delta, the southern coast of the Balearic Islands, as well as the Cape of Palos, as neritic feeding habitats for turtles. So, there is a migratory corridor also for sea turtles in the waters off the Spanish coast, where loggerhead turtles distribute from the eastern Mediterranean waters, bordering the Ligurian Sea and the Gulf of Leon reaching Catalan waters, and all the way to the Cape of the Nao and to the southwest of the Balearic Islands.

White coral communities are found on the deepest rocky bottoms of Cape Creus are associated with a considerable diversity of sessile species, with presence of sponges, octocorals, hydroids, bryozoans, brachiopods, ascidians, ...., as well as mobile species such as woodlands, sea urchins and several species of decapods. A rich zooplankton community and many species of fishing interest find here their ideal habitat.

### 3.5. HUMAN POPULATION AND USE OF NATURAL RESOURCES

#### 3.5.1. Human population

a) Inhabitants inside the area:

Permanent

Seasonal number (additional to permanent)

Number

Date of data

0	
0	

Description of the population

Not applicable to the proposed area

Main human settlements and their populations

Not applicable to the proposed area

### 3.5.2. Current human use and development

a) Briefly describe the current use of the area by subsistence, artisan, commercial and recreational fishing, hunting, tourism, agriculture and other economic sectors.

As there is no resident population within the area, all users access from outside its boundary:

**Commercial fishing: fishing grounds**

In the proposed area, the following professional fishing grounds are located: Les Roques de Banca, Barra dels Colls, Els Farallons de la Calç, and South of Vedra.

**Tourism and nautical recreation:**

This is a key sector for the Spanish economy. However, in this area, tourism can only be considered sporadic and isolated, made by small boats, mainly in the area of the Ibiza pass. Tourist activities such as cetacean observation show an incipient development.

**Marine transport:**

The area to be protected is affected by maritime traffic coming from population centers such as Barcelona, Valencia, Palma de Mallorca; there are as well important commercial and fishing harbors such as Cartagena, Alicante, Denia, Cullera, Tarragona in the peninsula, and Ibiza, and Mahón on the insular coasts

b) Enter how many of the users depend on these resources, seasonality, and assessment of the social and economic importance of their use and of the perceived impact on the conservation of the area, in a score of 0-1-2-3 (meaning null, low, medium, high).

ACTIVITY AND CATEGORY	ASSESS IMPORTANCE OF		Estimated No. of Users	Seasonality
	Socio-economic	Conserv. Impact		
<b><u>FISHING</u></b>			N/D	N/D
Subsistence	0	0		
Commercial, local	0	0		
Commercial, non-local	1	1		
Controlled recreational	0	0		
Un-controlled recreational	0	0		
Other				
<b><u>TOURISM</u></b>			N/D	N/D
Regulated	0	0		
Unregulated	1	1		
Indicate the type of tourism .Tourism facilities	0	0		
<b><u>FOREST PRODUCTS</u></b>				
Subsistence	0	0		
Non-timber commercial, local	0	0		
Non-timber commercial, non-local				
Timber commercial, local	0	0		
Timber commercial, non-local	0	0		
	0	0		
Agriculture	0	0		
Stockbreeding	0	0		
Aquaculture	0	0		
<b>EXTENSIVE STOCK GRAZING</b>				
Subsistence				
Commercial, local	0	0		
Commercial, non-local	0	0		
	0	0		
<b>OTHER ACTIVITIES:</b>			N/D	N/D

3.5.3. Traditional economic or subsistence uses

Name any environmentally sound traditional activities integrated with nature, which support the well being of the local population. E.g. land, water use, target species, if closed seasons or closed zones are used as management techniques.

Not applicable to the proposed area

#### 4. MEDITERRANEAN IMPORTANCE OF THE SITE

This Section aims at stressing the importance of the site for conservation at the regional or global scales, as set in Art. 8 para. 2 of the Protocol and B2-a, B2-b and B2-c in Annex I.

##### 4.1. PRESENCE OF ECOSYSTEMS/HABITATS SPECIFIC TO THE MEDITERRANEAN REGION

Name the type of habitats considered of Mediterranean specificity, on the basis of the habitat classifications adopted within the framework of MAP, and their estimated cover (Ha).

The following habitat types are found within the proposed area (for which coverage area information is not yet available):

- IV.3.1. Hard beds and rocks of the circalitoral, with coralligenous biocenosis
- V.1. 1: Biocenosis of bathyal muds
- V.2. Biocenopsis of bathyal sands,
- V.3. Hard beds and rocks of the bathyal level:
- V.3. 1. Biocenosis of deep sea corals on hard beds and rocks

In the circalitoral and bathyal bottoms we find canyons of the continental shelf of the Gulf of León, which channel the contributions of organic matter both from the surface waters and the continental shelf to the abyssal plains. They are essential habitats for the life cycle of some species. Some of these canyons are the following: Creus Canyon, San Feliu Valley, Fonera Canyon and Palamós and Blanes Canyon, among others.

White coral and cold water reefs and other benthic invertebrates are species that play a major role in the rocky escarpments at the banks and bottoms of canyons.

In the biocenosis of bathyal muds and sands we can find structures produced by leaking gases, for example in the Ibiza Channel where a pockmarks zone (fluid escape craters) is located, as well as in the slope of the Gulf of Leon

On rocky protrusions of the platform and continental slope may exist small reefs of yellow corals. Some of these promontories are, for example, Seamount Spartacus, and the Placer de la Barra Alta (near Columbretes Islands)

#### 4.2. PRESENCE OF HABITATS THAT ARE CRITICAL TO ENDANGERED, THREATENED OR ENDEMIC SPECIES

A critical habitat is an area essential to the conservation of the species concerned. These species should be those included in Annex II of the Protocol. E.g. Islets and sea stacks, as small islands in the sea or in large bodies of water, mostly important for water-bird colonies; caves appropriate for monk seals; undisturbed sand beaches where marine turtle nesting occurs; coastal lagoons where threatened fish or bird species feed or breed; tidal flats, coastal or benthic substrates important for marine invertebrates, etc.

Name the habitat types and the species linked to it.

The whole marine environment of the proposed area of SPAMI is essential for conservation due to the presence of certain species; and more specifically for being a migratory area for cetaceans, as well as for the presence of marine turtles and seabirds.

Regarding the species in the water column included in Annex II of the Protocol, the area is important as habitat of mammals such as: *Megaptera novaeangliae*, *Balaenoptera physalus*, *Physeter macrocephalus*, *Ziphius cavirostris*, *Grampus griseus*, *Globicephala melas*, *Pseudorca crassidens*, *Delphinus delphis*, *Stenella coeruleoalba* and *Tursiops truncatus*.

In addition, it is important because of the presence of marine reptile species such as *Caretta caretta*, *Dermochelys coriacea* and *Chelonia mydas*, as well as all species of marine fish specified in section 3.4.2. of this Annotated Format

Besides, as an associated habitat, the air column above sea level is also considered, as habitat of seabird species such as: *Phalacrocorax aristotelis desmarestii*, *Hydrobates pelagicus melitensis*, *Calonectris diomedea*, *Puffinus mauretanicus*, *Puffinus Yelkouan*, *Larus audouinii*, *Larus melanocephalus*, *Sterna sandvicensis* and *Sterna albifrons*.

In the circalittoral and batial stages, we find the habitats IV.3 (Hard beds and rocks of the circalittoral, with coralligenous biocenosis), and V.1, V.2 and V.3 (Bacillus biosciences of muds, sands and rocky bottoms ), to which several species of invertebrates listed in Annex II are associated: *Madrepora oculata* and *Lophelia pertusa*



#### 4.3. OTHER RELEVANT FEATURES (Art. 8 paragraph 2 in the Protocol)

##### 4.3.1. Educational Interest (B-3 in Annex I)

E.g. particular values for activities of environmental education or awareness

Not applicable to the proposed area

##### 4.3.2. Scientific Interest (B-3 in Annex I)

Explain if the site represents a particular value for research in the field of natural or heritage sciences.

Scientific activity and marine studies have been developed in this area of the Mediterranean since the beginning of the 20th century. There is an Oceanographic Centers of the Spanish Institute of Oceanography (IEO) in the Balearic Islands. The biology section of the CSIC (Superior Council of Scientific Research) has been working in the area with the "Institute of Applied Biology" and laboratories in Blanes, Vinaroz and Castellón. In the deep platform and underwater canyon of Cap de Creus research is developed (ICM-CSIC). Currently, these institutions, together with the universities, carry out extensive studies and research in the area.

Within the framework of the INDEMARES project, several deep-shelf areas have been investigated, including the Delta del Ebro area and the Columbretes Islands

##### 4.3.3. Aesthetic Interest (B-3 in Annex I)

Name and briefly describe any outstanding natural features, landscapes or seascapes.

Not applicable to the proposed area

##### 4.3.4. Main cultural features

Indicate if the area has a high representative value with respect to the cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.

Not applicable to the proposed area

## **5. IMPACTS AND ACTIVITIES AFFECTING THE AREA**

### **5.1. IMPACTS AND ACTIVITIES WITHIN THE SITE**

#### **5.1.1. Exploitation of natural resources**

Assess if the current rates of exploitation of natural resources within the area (sand, water and mineral exploitation, wood gathering, fishing, grazing...) are deemed unsustainable in quality or quantity, and try to quantify these threats, e.g. the percentage of the area under threat, or any known increase in extraction rates.

#### **Fishing Sector:**

Fishing activity in the fishing grounds mentioned in point 3.5.2. is relevant, and it is originated from both peninsular and Balearic ports; several fishing techniques are being used: bottom trawling, purse-seine fishing for tuna and small pelagic species, surface longlines, etc... Competition between dolphins and other cetaceans, and these fishing activities are foreseeable; also, the risk of bycatch of these species of cetaceans, marine turtles and seabirds in different fishing gears.

Besides, the use of acoustic pingers in fishing gear also produces underwater noise, which may interfere with the biological functions of marine mammals and turtles.

### 5.1.2. Threats to habitats and species

Mention any serious threats to marine or coastal habitats (e.g. modification, desiccation, disturbance, pollution) or to species (e.g. disturbance, poaching, introduced alien species...) within the area.

#### **Maritime traffic:**

Maritime traffic poses threats to cetacean species and to turtles, both due to the noise pollution generated and to the risk of collisions. The corridor crosses in its South part main ferry routes, some of high speed, that connect Valencia and Denia with the Balearic Islands. These fast passenger vessels pose threat to cetaceans, particularly for large species and slow swimming.

Commercial ports such as Barcelona, Palma de Mallorca or Valencia, involve an intense and growing maritime traffic of large freighters, which increases the probability of collisions with cetaceans

#### **Tourism and nautical recreation:**

This is a key sector for the Spanish economy. However, in this area, tourism can only be considered incipient and punctual, carried out by small boats, mainly in the area of the passage of Ibiza. Touristic activities such as cetacean observation show a booming development.

### 5.1.3. Demand by an increased population and infrastructures

Assess whether the current human presence or an expected increase in frequentation (tourism, passage of vehicles and boats) and any human immigration into the area, or plans to build infrastructures, are considered a threat.

Not applicable since there is no population in the area.

### 5.1.4. Historic and current conflicts

Make a brief statement of any historic or current conflicts between users or user groups.

Not applicable to the proposed area

## 5.2. IMPACTS AND ACTIVITIES AROUND THE SITE

In Art.7.2-e the Protocol calls for the regulation of activities compatible with the objectives for which a SPA was declared, such as those likely to harm or disturb species or ecosystems (Art.6.h), while Section B4 in Annex I asks to consider “the existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area” (B4-a in Annex I), recommending the existence, in the area and its surroundings, of opportunities for sustainable development (B4-d) and of an integrated coastal management plan (B4-e).

### 5.2.1. Pollution

Name any point and non-point sources of external pollution in nearby areas, including solid waste, and especially those affecting waters up-current.

The major pressures that generally contribute to the pollution of the marine waters are the high degree of urbanization of the coast, and agriculture, and their direct discharges to the sea.

However, since the distance from the limits of the SPAMI to the coastline, it is not considered that it will be affected by discharges.

### 5.2.2. Other external threats, natural and/or anthropogenic

Briefly describe any other external threat to the ecological, biological, aesthetic or cultural values of the area (such as unregulated exploitation of natural resources, serious threats on habitats or species, increase of human presence, significant impacts on landscapes and cultural values, pollution problems, any sectorial development plans and proposed projects, etc.), likely to influence the area in question.

**Offshore oil and gas exploration and exploitation:**

In general, hydrocarbon exploration and research activities require the application of diverse technologies for geophysical studies (aeromagnetic, gravimetric and seismic) and, where appropriate, the drilling of exploratory to locate hydrocarbon deposits also causes noise and vibrations. In addition, during the exploitation phase of these detected hydrocarbons, noise is generated due to the pumping, which can be harmful to the fauna protected by this SPAMI.

As of today, there is one facility outside the proposed SPAMI: the oil platform "Casablanca", which consists of an oil complex located 52 km from Tarragona and 150 from Mallorca, which rises 75 meters above the sea and Perforates the marine subsoil in four zones of active wells (Rodaballo, Boquerón, Barracuda and Chipirón).

In the last years, there has been several applications of seismic research projects which would overlap with a part of the SPAMI proposal. None of them have been approved.

**Renewable energies:**

Certain areas within the limits of the proposed area are considered a priori as "suitable" for the installation of offshore wind farms, as had been approved in 2008 by a joint resolution of Ministries of Industry and Environment.

At present, there is no such project presented by any company in the SPAMI area.

### 5.2.3. Sustainable development measures

Comment whether the area is covered by an integrated coastal management plan, or bordering upon a zone under such a plan. Are there other opportunities for sustainable development provided for in the neighbouring areas?

Integrated coastal management plan is not applicable in the area since it is located offshore.

The future management plan will consist on measures that will be checked against sustainable development standards.

## 6. EXPECTED DEVELOPMENT AND TRENDS<sup>1</sup>

The foreseeable development and trends of the site do not appear in the list of common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI list, as established in the Protocol and its Annex I. Moreover, this is not always easy to assess and it is necessary to have knowledge about the site, which is not always available to all managers of protected areas; Thus, it is not obligatory to fill in the boxes in this Section 6.

On the other hand, the assessment of this foreseeable evolution and trends constitutes a dynamic supplement to the static knowledge of the site, as it appears in Sections 3, 4 and 5 above. Moreover, it is of significant importance for the definition of the objectives and the management plan of the site.

It thus appears desirable to bringing out the main outlines at least in respect to the following points:

### 6.1. EXPECTED DEVELOPMENT AND TRENDS OF THREATS TO AND PRESSURES UPON THE AREA

Deal briefly in succession with:

The demographic development in and around the site

The development of economic activities (other than tourism and recreation) within the area

The development of local demand on tourism and recreation

The development of tourism pressure on the area

The SPAMI is proposed to protect the high values as migration corridor for cetaceans and other species. The development of economic activities, including the research, exploration and exploitation of energy resources, will be considered as to avoid any significant damage to cetaceans and other marine species.

The development of local demand on tourism and recreation/ tourism pressure on the area:  
Some increase of recreational activities related to the whale watching is foreseen in the area; it is also possible a future increase of nautical recreation, although it is by now difficult to quantify

### 6.2. POTENTIAL CONFLICTS IN THE AREA

Make a brief statement of potential use conflicts between the users or group of users of the site.

There is great social and institutional awareness of the relevant natural values to protect; there is also a social opposition to potential future development of oil and gas projects of exploration and exploitation. Besides this issue, there is no known conflict of uses.

### 6.3. EXPECTED DEVELOPMENT AND TRENDS OF THE NATURAL LAND ENVIRONMENT AND LANDSCAPES OF THE AREA: as expected arising from the evolution of the pressures

Not applicable to the proposed area

**6.4. EXPECTED DEVELOPMENT AND TRENDS OF THE MARINE ENVIRONMENT AND SEASCAPES OF THE AREA:** as expected arising from the evolution of the pressures

It is considered that, as a consequence of the declaration of this large marine area as SPAMI and the preventive protection of the natural values present in it, there will be a positive evolution, mainly on cetaceans, marine turtles and seabirds that cohabit in it.

In any case, those activities that may imply a possible environmental impact will be planned and regulated in the future management plan to be approved.



## 7. PROTECTION REGIME

### 7.1. LEGAL STATUS (General Principles “e” and Section C-2 both in Annex I)

#### 7.1.1. Historical background of the protection of the site

Based on the scientific knowledge achieved as results of the “Mediterranean Project” (Proyecto de identificación de las áreas de especial interés para la conservación de los cetáceos en el Mediterráneo español (Proyecto Mediterráneo) it is suggested to protect this area because of its importance as a cetaceans –and other species such as sea turtles- migration corridor.

In addition, more information has been compiled which verifies the need for protection. The protection regime for the area is finally achieved through the declaration of the area as a Marine Protected Area, which is a legal category for Natural Protected Area recognized in the Law of Natural Heritage and Biodiversity

#### 7.1.2. Legal texts currently ruling the protection on the site

Enter the national conservation category, the dates and the present enforcement status of the legal instrument declaring the protection of the area. Consider both the land and the marine areas of the site. Include the full text(s) as an annex.

The national conservation category is Marine Protected Area. **Marine Protected Area** is a protection figure recognized by the **Law 42/2007**, of Natural Heritage and Biodiversity. The same law, in its article 50, specifies that natural areas that are formally designated in accordance with the international conventions to which Spain is a Party, will be considered as “protected areas by international instruments”, and specifically includes the figure of SPAMI as a protection category.

The declaration of the legal instrument was done in June 2018 through the **Royal Decree 699/2018**, of June 29, which declares the Cetaceans migration corridor in the Mediterranean as a Marine Protected Area, approves a preventive protection regime and proposes its inclusion in the List of Specially Protected Areas of Mediterranean Importance within the framework of the Barcelona Convention.

[https://www.boe.es/diario\\_boe/txt.php?id=BOE-A-2018-9034](https://www.boe.es/diario_boe/txt.php?id=BOE-A-2018-9034)

#### 7.1.3. Objectives (General Principles “a” and D-1 in Annex I)

Name in order of importance the objectives of the area as stated in its legal declaration.

In order to ensure that there is no decline in the conservation status of the species present in the MPA, the **Royal Decree 699/2018 approves** a preventive protection regime. This preventive protection regime consists in the prohibition of using active systems to perform underground geological research and the prohibition of hydrocarbon extractive activities, except for those related to research or exploitation permits in force.

This protection regime will be in force until the approval of a detailed management plan that will be approved within three years of the time of inclusion in the SPAMI List, according to D7 of Annex I.

7.1.4. Indicate whether the national protection regime arises from international treaties enforced or from implementation measures of treaties (Art. 6.a in the Protocol).

The national protection regime arises both from international treaties (the SPA/BD Protocol of the Barcelona Convention, as well as on the European Directives regarding habitats, species and marine protection), and on the law of Natural Heritage and Biodiversity mentioned above that constitute the legal framework to declare the area as a MPA and as a SPAMI.

## 7.2. INTERNATIONAL STATUS

### 7.2.1. Transboundary or high seas areas

Complete this section only if the area is transboundary, totally or partially in the high sea, or within areas where the limits of national sovereignty or jurisdiction have not yet been defined. In this case, mention the modalities of the consultation (Art. 9 para. 3A in the Protocol and General Principles “d” in Annex I).

The whole area of this proposal of SPAMI is located entirely on Spanish marine waters. Kindly take note that the proposal could be extended to the North to include all waters under Spanish jurisdiction. But, in respect for International Law and the good will between the parties, in the context of the ongoing negotiations on the definition of the marine limits with France, we submit now a limited proposal.

### 7.2.2. International category

Mention if the area, or part of it, has been designated and on what date, with an international conservation category (e.g. Specially Protected Area, Biosphere Reserve, Ramsar Site, World Heritage Site, European Diploma, Natura 2000, Emerald network, etc.).

Within the limits established in this proposal of SPAMI, the following protection figures is partially overlapped: SPA Plataforma talud marinos del Cabo de la Nao

## 7.3. PREVIOUS LEGAL BACKGROUND AND LAND TENURE ISSUES

Briefly mention if the area or part of it is subject to any legal claim, or to any file open in that connection within the framework of an international body. Describe the land tenure regimes within the area, and append a map if existing.

The whole area of this proposal of SPAMI is located on Spanish marine waters, and therefore, it is patrimony of the Kingdom of Spain, and it is not property of individual people.

#### 7.4. LEGAL PROVISIONS FOR MANAGEMENT (Section D-1 in Annex I)

##### 7.4.1. Zoning

Briefly state if the legal text protecting the area provides for different zones to allocate different management objectives of the area (e.g. core and scientific zones in both land and sea, fishing zones, visitation, gathering, restoration zones etc) and in this case the surface area in ha of these zones. Include a map as an annex

The management plan has not been elaborated yet. Zoning will be considered in case it is deemed appropriate, in order to achieve the objectives that motivate and justify this proposal of SPAMI.

##### 7.4.2. Basic regulations

Mention the provisions, which apply to the area concerning the implementation of Article 6 of the Protocol (paragraphs a to i), Section D5 (a to d) in the Annex I and Article 17 of the Protocol.

Provisions e) of article 6 and D5 c) are addressed in the protection regime approved in the legal text (royal Decree 699/2018) in which active systems to perform underground geological research and the hydrocarbon extractive activities are forbidden, except for those related to research or exploitation permits in force

The rest of protection measures described in the SPAMI Protocol will be considered when elaborating the management plan, where a risk analysis will be carried out in order to identify pressures affecting natural values that need to be addressed.

In any case, in addition to what is established in Article 17 of the Protocol, national legal requirements regarding the environmental protection would apply to the whole SPAMI proposed area; and in particular, the projects which were intended to be developed in this area, would be subject to the provisions of Law 21/2013, of December 9, on environmental assessment: ([http://www.boe.es/diario\\_boe/txt.php?id=BOE-A-2013-12913](http://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-12913))

#### 7.4.3. Legal competencies

Section D4 in Annex I states that the competence and responsibility with regard to administration and implementation of conservation measures for areas proposed for inclusion in the SPAMI List must be clearly defined in the texts governing each area. Additionally Art.7.4. of the Protocol calls for the provision of clear competencies and co-ordination between national land and sea authorities, with a view to ensuring the appropriate administration and management of the protected area as a whole. Mention in which way do the legal provisions clearly establish the institutional competencies and responsibilities for the administration and conservation of the area, and if being the case, their co-ordination means, including those between land and sea authorities.

The Royal Decree and its provisions are approved under the provisions of the Spanish Constitution and under the competences assigned to the Spanish Government in relation to marine biodiversity.

As the proposed area of the SPAMI is located entirely in waters of the Exclusive Economic Zone of Spain, the competencies in all sectors (legislation, management, authorization ...) fall under the National Government.

#### 7.4.4. Other legal provisions

Describe any other relevant legal provisions, such as those requiring a management plan, the establishment of a local participation body, binding measures for other institutions or economic sectors present in the area, allocation of financial resources and tools, or any other significant measures concerning the protection and management of the area or its surrounding zones.

The Royal Decree states the need to approve a detailed management plan within three years of the time of inclusion of the MPA in the SPAMI List.

For the elaboration of the management plan a participatory process including all relevant stakeholders will be carried out.

## 8. MANAGEMENT

Through the General Principles, para. (e) in the Annex I, the Parties agree that the sites included in the SPAMI List are intended to have a value as examples and models for the protection of the natural heritage of the region. To this end, the Parties ensure that sites included in the List are provided with adequate legal status, protection measures and management methods and means.

### 8.1. INSTITUTIONAL LEVEL

#### 8.1.1. Authority/Authorities responsible for the area

Ministry for the Ecological Transition

#### 8.1.2. Other participants in the management body

Such as other national or local institutions, as stated in Section D6 in Annex I.

The competent management body of the future SPAMI will search for collaboration with other institutions of the National Government, as well as with regional institutions of the Regional Governments.

#### 8.1.3. Participants in other committees or bodies

Such as a scientific committee, or a body of representatives from the local stakeholders, the public, the professional and non-governmental sectors, as in Sections B4-b and B4-c in Annex I.

In order to look for the mentioned consensus in the development and approval of the management plan, , the competent management body of the future SPAMI will count on a scientific advise, and representatives from the stakeholders, the public, the professional and non-governmental sectors.

#### 8.1.4. Effectiveness

As stated in Section B4 of Annex I, assess as very low, low, moderate, satisfactory, very satisfactory, and comment as needed on the following aspects:

a) Effectiveness of the co-ordination, where existing:

Not applicable yet to the proposed area

b) Quality of involvement by the public, local communities, economic sectors, scientific community:

Not applicable yet to the proposed area

## 8.2. MANAGEMENT PLAN (as set out in D7 of Annex I)

### 8.2.1. Management Plan

State if there is a management plan (MP) and in this case include the document as an annex. In the absence of a MP, mention if the main provisions governing the area and the main regulations for its protection are already in place and how (D7 in Annex I) and if the area will have a detailed management plan within three years (D7 in Annex I).

There is no management Plan yet for the proposed area. However, the legal act (Royal decree 699/2018) enforcing the MPA approves a preventive protection consisting in the prohibition of using active systems to perform underground geological research and the prohibition hydrocarbon extractive activities, except for those related to research or exploitation permits in force.

In addition, according to the legal act, this protection regime will be in force until the approval of a detailed management plan that will be approved within three years of the time of inclusion in the SPAMI List.

### 8.2.2. Formulation and approval of the Management Plan

Mention how the MP was formulated, e.g. by an expert team and/or under consultation and/or participation with other institutions or stakeholders. State the legal status of the MP, whether it is officialized, and how, and if it is binding for other institutions and sectors involved in the area.

Not applicable yet to the proposed area. Nevertheless the management plan will be elaborated following a participatory process involving all relevant stakeholders.

### 8.2.3. Contents and application of the Management Plan

State the degree of detail in the MP by entering YES or NO in the following list of potential contents, and assess the degree of implementation of the MP by using the 0-1-2-3 score on the right hand side:

Not applicable yet to the proposed area

	Existing in MP		Degree of application			
	YES	NO	0	1	2	3
Detailed management objectives	YES	NO	0	1	2	3
Zoning	YES	NO	0	1	2	3
Regulations for each zone	YES	NO	0	1	2	3
Governing body(ies)	YES	NO	0	1	2	3
Management programmes as:						
Administration	YES	NO	0	1	2	3
Protection	YES	NO	0	1	2	3
Natural resource management	YES	NO	0	1	2	3
Tourism and Visitation	YES	NO	0	1	2	3
Education and Training	YES	NO	0	1	2	3
Research and Monitoring	YES	NO	0	1	2	3
Services and Concessions	YES	NO	0	1	2	3
Fund raising activities	YES	NO	0	1	2	3
Periodic revisions of the MP	YES	NO	0	1	2	3

### 8.3. PROTECTION MEASURES

By Art. 6 of the Protocol the Parties agree to take all the necessary protection measures required for the conservation of the area, particularly the strengthening the application of the other Protocols to the Convention, and through the regulation of any other activity likely to harm the natural or cultural value of the area, such as economic, recreation or research activities. As per Section D2 in Annex I, the protection measures must be adequate to the site objectives in the short and long term, and take in particular into account the threats upon it.

#### 8.3.1. Boundaries and signing

Briefly, state if the boundaries of the area and its zones are adequately marked in the field, both on land, in the sea, and at the principal points of access.

There are no marked boundaries or marked zones since the proposed area is fully on marine open waters

#### 8.3.2. Institutional Collaboration

Name the different national and local institutions or organisations with legal responsibilities or involved in the protection and surveillance of land and sea zones, and any measures or mechanisms through which their co-ordination is pursued.

Ministry for the Ecological transition

#### 8.3.3. Surveillance

Consider the adequacy of the existing protection means (human and material), and your present ability to survey land and sea uses and accesses

The protection regime in force is surveyed from central services of the Ministry since the activities addressed (seismic surveys and hydrocarbons exploitation) depend on administrative authorisation.

#### 8.3.4. Enforcement

Briefly, consider the adequacy of existing penalties and powers for effective enforcement of regulations, whether the existing sanctions can be considered sufficient to dissuade infractions, and if the field staff is empowered to impose sanctions.

There is a general system on infringements and penalties established by the Law 42/2007 on Natural heritage and Biodiversity, and sanctions are enough to dissuade citizens.



## 9. AVAILABLE RESOURCES

### 9.1. HUMAN RESOURCES (Art. 7.2.f in the Protocol)

#### 9.1.1. Available staff

Assess the adequacy of the human resources available to the management body, in number of employees and training level, both in central headquarters and in the field. Indicate if there are staff training programmes.

The MPA is managed from the central headquarters of the Ministry for Ecological Transition

#### 9.1.2. Permanent field staff

Answer YES or NO on the current existence of the following FIELD staff categories. If YES, enter the number of staff either permanent or part-time in that category, and evaluate on a 0-1-2-3 score (0 is low, 3 is high) the adequacy of their training level.

Not applicable yet to the proposed area

	YES/NO		NUMBER Permanent/Part-time	ADEQUACY OF TRAINING LEVEL			
	YES	<u>NO</u>		0	1	2	3
Field Administrator	YES	<u>NO</u>		0	1	2	3
Field Experts (scientific monitoring)	YES	<u>NO</u>		0	1	2	3
Field Technicians (maintenance, etc)	YES	<u>NO</u>		0	1	2	3
Wardens	YES	<u>NO</u>		0	1	2	3
Of which marine wardens	YES	<u>NO</u>		0	1	2	3
Guides	YES	<u>NO</u>		0	1	2	3
Other							

#### 9.1.3. Additional Support

Briefly, describe if the area currently has the advantage of other external human resources in support of its objectives, either from other national or local institutions, volunteer programmes, non-governmental organisations, academic or international organisations. Mention if there are any significant changes in prospect for the near future.

Not applicable

## 9.2. FINANCIAL RESOURCES AND EQUIPMENT

By Art. 7 in the Protocol, the Parties agree to adopt measures or mechanisms to ensure the financing of the specially protected areas (Art.7.2.d), and the development of an appropriate infrastructure (Art.7.2.f). The General Principles para. "e" in the Annex I call upon the Parties to provide the areas with adequate management means.

### 9.2.1. Present financial means

Note if the basic financing is ensured: a core funding for basic staff, protection and information measures. Who provides this core funding? Briefly assess the degree of adequacy of the present financial means for the area, either low, moderate, satisfactory; e.g. the implementation of the management plan, including protection, information, education, training and research.

The origin of the core funding for basic staff, protection and information measures will be the National Budget

### 9.2.2. Expected or additional financial sources

Briefly describe any alternative sources of funding in use or planned, and the perspectives for long-term funding from national or other sources.

No other sources of funding besides those of the National Budget are currently foreseen

### 9.2.3. Basic infrastructure and equipment

Answer YES or NO to the following questions, and if YES, assess with a score of 1-2-3 (1 is low, 3 is high) the adequacy of the basic infrastructure and equipment.

	YES/NO	ADEQUACY			
Office and/or laboratory in the field	No for all of them	0	1	2	3
Signs on the main accesses		0	1	2	3
Guard posts on the main accesses		0	1	2	3
Visitors information centre		0	1	2	3
Self guided trails with signs		0	1	2	3
Terrestrial vehicles		0	1	2	3
Marine vehicles		0	1	2	3
Radio and communications		0	1	2	3
Environmental awareness materials		0	1	2	3
Capacity to respond to emergencies		0	1	2	3
Comment on basic infrastructure and equipment					

### 9.3. INFORMATION AND KNOWLEDGE

By Section D3 of Annex I, the Parties agree that the planning, protection and management of a SPAMI must be based on an adequate knowledge of the elements of the natural environment and of socio-economic and cultural factors that characterize each area. In case of shortcomings in basic knowledge, an area proposed for inclusion in the SPAMI List must have a programme for the collection on the unavailable data and information.

#### 9.3.1. State of knowledge

a) Assess the general state of knowledge of the area.

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b) Briefly describe the extent of knowledge of the area, considering at least specific maps, main ecological processes, habitat distribution, inventories of species and socio-economic factors, such as artisan fishing.

<p>There is scientific information based on the so-called "Mediterranean Project" (2002), mentioned before.</p> <p>There is also relevant information regarding the Marine Strategies (Initial Assessment 2012), although the geographical area studied within the Marine Subdivision Levantine-Balearic, covers a wider area than the proposed SPAMI itself</p> <p>Finally, there is other information and research made by universities, research institutions (IEO), mainly on cetaceans, seabirds and marine turtles</p>
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#### 9.3.2. Data collection

Describe and assess the adequacy of any programme and activities to collect data in the area.

<p>As a preliminary step to the preparation of the management plan, it is planned to carry out a compilation of all the existing scientific information of the natural values and their conservation status existing in the entire SPAMI area, as well as of the pressures and impacts that are occurring in the area.</p> <p>Besides, specific studies might also be needed in order to improve the knowledge for a better management plan.</p>
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#### 9.3.3. Monitoring programme

Section D8 in Annex I states that to be included in the SPAMI List, an area will have to be endowed with a monitoring programme having a certain number of significant parameters, in order to allow the assessment of the state and trends of the area, as well as the effectiveness and protection and management measures, so that they may be adapted if need be (indicators may, for instance, supply information about species status, condition of the ecosystem, land-use changes, extraction of natural resources -sand, water, game, fish-, visiting, adherence to the provisions of the management plan, etc.).

a) Is there a monitoring programme? no

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b) If NO, are there plans to start one, and when? When the management plan will be in place. In addition monitoring programs developed in the framework of Marine Strategies will provide information on the area.

c) If YES, assess as low, medium, satisfactory, its adequacy and present level of development.

d) If YES, who is/are carrying out the monitoring programme?

e) If YES, briefly describe how the monitoring programme will be used in reviewing the management plan.

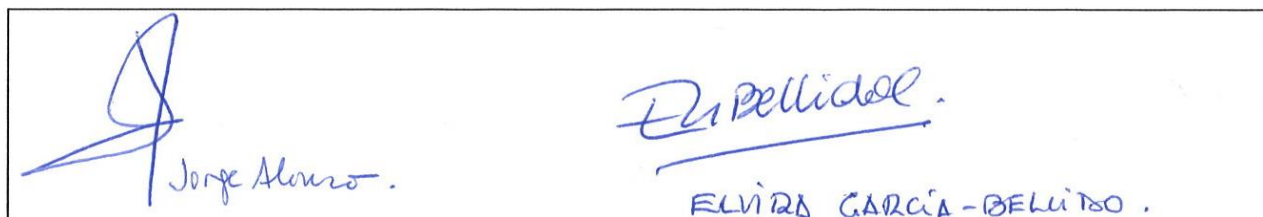
**10. Other information, if any**

**11. CONTACT ADDRESSES (name(s), position(s) and contact address(es) of the person(s) in charge with the proposal and that compiled the report)**

Jorge Alonso Rodríguez, Ministry for Ecological Transition, Spanish FP for SPA/BD Protocol  
[jarodrigz@miteco.es](mailto:jarodrigz@miteco.es)

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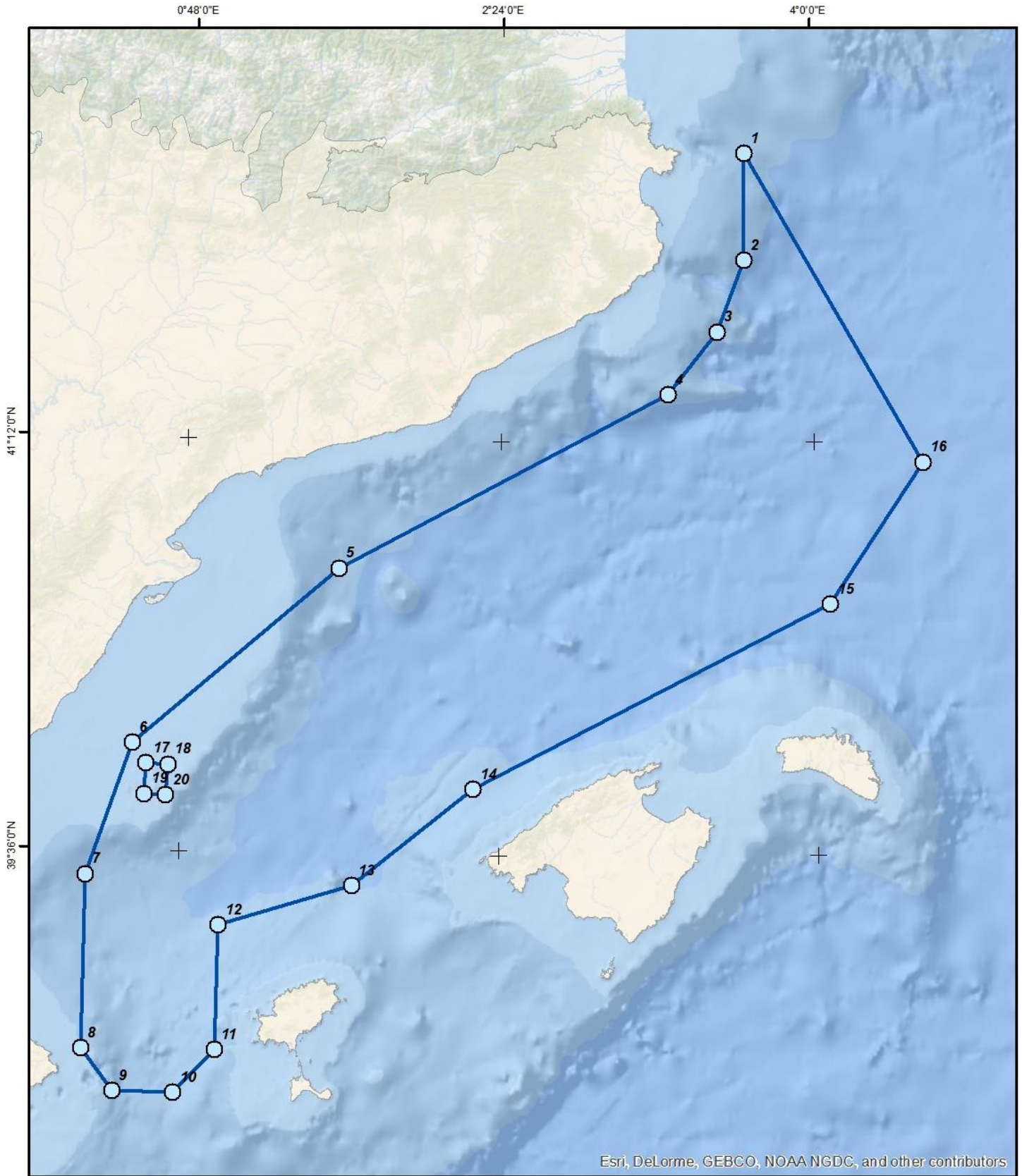
**12. SIGNATURE(S) ON BEHALF OF THE STATE(S) PARTY/PARTIES MAKING THE PROPOSAL**





The image shows two handwritten signatures in blue ink. On the left is the signature of Jorge Alonso, with the name 'Jorge Alonso.' written below it. On the right is the signature of Elvira García-Bellido, with the name 'ELVIRA GARCÍA-BELLIDO.' written below it.

**13. DATE**

10<sup>th</sup> of April, 2019



Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors

	<b>Zonas Especialmente Protegidas de Importancia para el Mediterráneo</b>	Superficie cartográfica (km <sup>2</sup> ): 46.262,82	
	Proyección UTM Huso 31 Datum ETRS89 Coordenadas geográficas		
