



BLUE MARINE
FOUNDATION



General comment on SES 5a: Natura 2000 sites of the Regional Units of Corfu, Kefalonia, Ithaca, Lefkada and Zakynthos

The Special Environmental Study appears to be comprehensive by including all priority species in the area and including measures for their proper management. However, alien species that occur in the area are not mentioned in the relevant measures, as well as research, monitoring and management actions that are of major importance for the conservation of the protected area/species/habitats.

On the general content of the SES it is proposed to include alien species as defined by the EU (NIS) in the proposals for actions to monitor, manage and address them in accordance with Regulation EU/1143/2014 and the relevant projections of the European Biodiversity Strategy, for all N2K of the EPM5a, with a particular focus on species classified as 'invasive' by scientific publications (e.g. Lionfish (*Pterois miles*), blue crab (*Callinectes sapidus*), and invasive species included in the list of invasive alien species considered of EU concern according to the same European Regulation, such as the Myocastor (*Myocastor coypus*).

Regarding the "Assessment – Delimitation of area and protected object" **chapter 4** of the present, and specifically for the complex Biodiversity Protection Area of Lefkada (ELBA22203), we attach in detail our comments and proposals to the corresponding chapter hereof.

Regarding the management measures **chapter 5** of this document for the complex Biodiversity Protection Area of Lefkada (ELBA22203), we attach in detail our comments and suggestions to the corresponding chapter hereof.

CHAPTER. 4: for the complex Biodiversity Protection Area of Lefkada (ELBA22203)

Concerning habitat mapping 1120 (Posidonia beds, *Posidonion oceanicae*)

The mapping of habitat 1120 (Posidonia beds, *Posidonion oceanicae*) 1 km north of the island of Formicula on the reef was not included in the SES habitat map, although it was submitted to the relevant researcher of EPSILON on 22/10/2022 via email and was previously submitted to the Ministry of Environment and was included in the creation of ΖΠΦ-09 in the management measures. The existence of the habitat on the reef north of the island of Formicula is confirmed by other scientific publications (Panayotidis, Panayiotis, Papathanasiou, Vasillis, Gerakaris, Vasileios, Fakiris, Elias, Orfanidis, Sotiris, Papatheodorou, Georgios, Kosmidou, Maria, Georgiou, Nikos, Drakopoulou, Vivi and Loukaidi, Valia . "Seagrass meadows in the Greek Seas: presence, abundance and spatial distribution" *Botanica Marina*, vol. 65, no. 4, 2022, pp. 289-299. <https://doi.org/10.1515/bot-2022-0011>). Therefore, a significant part of priority habitat 1120 and habitat of *Pinna nobilis* species is omitted, thus excluding it from planned studies and restoration actions. It is proposed to add the mapped section in chapter 4 to facilitate research and restoration actions for the protected habitat and species (1120, 1028) in zone ΖΠΦ-09, which has been included in the SES as 'Critical caves for the reproduction and rest of the Mediterranean monk seal'.

Concerning the mapping of habitat 1170 Reefs, in particular for the subtype 'Coralligenous reefs'

From our fieldwork so far, the presence of coralligenous reefs, which are part of habitat 1170, is confirmed in the northeastern part of Atokos. Therefore, it is proposed to add this habitat to the mapping of the area and to clearly refer to its presence, so that it is taken into account in the proposed management measures of the area. The presence of this habitat in a Protected Area, due to their presence at greater depths, is an excellent opportunity to protect them and therefore its inclusion in the mapping is crucial. In addition, this habitat type, which is not a



BLUE MARINE
FOUNDATION



priority habitat according to the Habitats Directive, but its ecological value is reflected in the species it hosts, such as the sponges *Axinella* spp. and *C. rubrum*, which are protected by international conventions.

CHAPTER. 5: for the complex Biodiversity Protection Area of Lefkada (ELBA22203)

Comments for N2K GR2220003: INNER ARCHIPELAGOS OF IONIAN (MEGANISI, ARKOUDI, ATOKOS, VROMONAS)

Concerning the habitat 1120/(measure sheet: MM22203CW0201 - MM22203CS0301)

Taking into account the specificity and detail of the measures concerning *Pinna nobilis* (Code: 1028) (measure sheet: MM22203CW0201 - MM22203CS0301) and that in the measure it is proposed to group Pina with habitat 1120, we consider it important to define the research and restoration actions for habitat 1120 separately. Specifically, it is proposed that the actions be defined spatially with the respective Protection Zones and it is proposed that these should be: ΖΔΟΕ-01, especially in ΖΒΔΦΠ-01 and in particular ΖΑΠΦ-04 concerning the island of Formikoula and ΖΑΠΦ-01 concerning Atoko. In addition, research actions are proposed to be provided as a basis for subsequent restoration actions. Habitat 1120 overlaps spatially with the entire breeding range of *P. nobilis* and therefore it is proposed to envisage restoration actions, as this is inextricably linked to the restoration of *P. nobilis*. Actions are proposed to include a) transplantation-planting of species *P. oceanica* in degraded areas and b) monitoring the success of the restoration methodology.

The mapping of habitat 1120 (*Posidonia* beds, *Posidonium oceanicae*) 1 km north of the island of Formicula on the reef, was not included in the habitat map of the SES, although it was submitted to the respective researcher on 22/10/2022 via email and had previously been submitted to the Ministry of Environment and Energy and was included in the creation of ΖΠΦ-09. The existence of the habitat on the reef north of the island of Formicula is confirmed by other scientific publications (Panayotidis, Panayiotis, Papatheanasiou, Vasillis, Gerakaris, Vasileios, Fakiris, Elias, Orfanidis, Sotiris, Papatheodorou, Georgios, Kosmidou, Maria, Georgiou, Nikos, Drakopoulou, Vivi and Loukaidi, Valia. "Seagrass meadows in the Greek Seas: presence, abundance and spatial distribution" *Botanica Marina*, vol. 65, no. 4, 2022, pp. 289-299. <https://doi.org/10.1515/bot-2022-0011>). Therefore, a significant part of a priority habitat 1120 and habitat of *Pinna nobilis* species is omitted, thus excluding it from planned studies and restoration actions. It is proposed to add the mapped section in order to provide for research and restoration actions for the protected area (1120, 1028) in zone ΖΠΦ-09, which has been included in the EPM as 'Critical caves for the reproduction and rest of the Mediterranean monk seal'.

Regarding the monitoring and control of the spread of the invasive species *Caulerpa racemose* and *Caulerpa taxifolia* (MM22203CW0201 - MM22203CS0301) it is proposed to add other species, such as *Siganus luridus* and *Siganus rivulatus* that have been recorded in the area and potentially pose a threat to habitat 1120 as they are grazing (Ozvarol, Y., Ertan, O. O., & Turna, I. I. (2011). The grazing effect of *Siganus luridus* Rüppell, 1828 on *Posidonia oceanica* (L.) Delile, 1813 meadows in Turkish Mediterranean coast (Gazipaşa/Antalya). *Journal of Food, Agriculture & Environment*, 9(1), 531-533.). In addition, the species *Halophila stipulacea*, which is alien and has been recorded growing in between *Posidonia* meadows during our fieldwork in Atokos island and therefore it should be included.

Concerning the habitat 1170/(measure sheet: MM22203CW0201 - MM22203CS0301)

Regarding the monitoring and control for the spread of invasive species *Caulerpa racemose*, *C. taxifolia* (MM22203CW0201 - MM22203CS0301), it is proposed to add other species, such as *Siganus* spp. which have been recorded in the area and are grazers, while for this habitat and *Pterois miles* it is proposed to be included, as it is an invasive species with a confirmed presence

in N. Formicula and the wider region. Specifically, the species was recorded both during iSea's field research within the framework of the project REPOSIDONIA, (2 individuals of the species, October, 2022), while in addition the spread of *P. miles* indicates that it extends to the entire Eastern Ionian Sea (Dimitriadis, C., Galanidi, M., Zenetos, A., Corsini-Foka, M., Giovos, I., Karachle, P. K., ... & Katsanevakis, S. (2020). Updating the occurrences of *Pterois miles* in the Mediterranean Sea, with considerations on thermal boundaries and future range expansion. *Mediterranean marine science*, 21(1), 62-69. <https://doi.org/10.12681/mms.21845> ; Kleitou, P., Hall-Spencer, J. M., Savva, I., Kletou, D., Hadjistyli, M., Azzurro, E., ... & Rees, S. E. (2021). The case of lionfish (*Pterois miles*) in the Mediterranean Sea demonstrates limitations in EU legislation to address marine biological invasions. *Journal of Marine Science and Engineering*, 9(3), 325. <https://doi.org/10.3390/jmse9030325>), and should therefore be included in the measures for all N2K of the NRP5a.

In the Monitoring actions for habitat 1170, specific protocols and methodologies have been added concerning habitat 1170 with algal cover, but it is proposed to add similar protocols for coralligenous/biogenic reefs, as they are part of habitat 1170 and our research so far confirms their presence in the northeastern part of Atoko, which is included in the ΠΑΥ. If fish farming facilities are located, the protected area is endangered. Habitat subcategory 1170 (coralligenous reefs) is home to important species such as the sponges *Axinella* spp. and *C. rubrum*, which are also included national and international regulations.

Concerning *Monachus monachus* species and habitat restoration //(measure sheet: MM22203CW 0201 - MM22203CS0301)

1. Similarly to the measure concerning the endemic species *Arenaria leucadia* (MM22203CW0201 - MM22203CS0301), which has as a proposed measure the "placement of information and warning signs", we propose the addition of signs in N. Formikoula to warn users about the limits of ΖΑΠΦ-02 and ΖΑΠΦ-04.

Concerning the species *Chelonia mydas*, *Caretta caretta*, *Tursiops truncatus* (measure sheet: MM22203CG0101 - MM22203CW0202 - MM22203CG1501)

Within the framework of the "Management Measures for Fisheries & Communication, Information, Education" (MM22203CG0101 - MM22203CW0202 - MM22203CG1501) the adoption of good practices for the management of cetaceans and other species of aquatic fauna accidentally caught with fishing gear (cetaceans, sea turtles, seals, seabirds, etc.) <http://www.fao.org/publications/card/es/c/CA0015EL>), capacity building and training of fishermen. This measure is proposed to include other vulnerable species. In particular, sharks and rays are proposed to be included, as they are important species for maintaining biodiversity and ecosystem balance, have a confirmed presence in the area and there is a high percentage of accidental catches of these species. Finally, both species are included in FAO guides for the adoption of good practices for the management of vulnerable species caught accidentally (<https://www.fao.org/documents/card/en/c/i9152e1>).

Concerning measure MM22203CG0701

It is proposed, in addition to the SEIA provided for in the context of obtaining authorisation for the creation of new aquaculture under Greek legislation, to prohibit the establishment of aquaculture facilities in the relevant *Pinna nobilis* habitat and in the habitat: *Posidonia* beds, *Posidonium oceanicae* in order to ensure the protection of the protected area under the SES.

The island of Atokos should be excluded from the ΠΑΥ as: 1) the priority habitat *Posidonia* beds, *Posidonium oceanicae* (1120) and an important habitat of *Pinna nobilis* grows over it, 2) there is ΖΑΠΦ-01 "sea area about 200 meters from Atoko Island, Zone of Absolute Nature Protection, Critical caves for the reproduction and rest of the Mediterranean monk seal" and therefore allowing the development of aquaculture units does not take into account the reasons for



designating the site as ZΑΠ, such as possible interactions between the Mediterranean monk seal and aquaculture units, and (3) at the northern end of the island there is confirmed to be a coralligenous reef (subclass of 1170) with species belonging to the annexes to the Habitats Directive; such as sponges of the genus *Axinella* and possibly *C. rubrum*. The possibility of developing aquaculture units in the area therefore overlooks a number of other statutory provisions for the protection of both habitats and protected species in the area.

As regards the studies required for interaction with important fauna, it is proposed to add *M. monachus*, as it exhibits interactions with aquaculture facilities. The island of Formicula is not mentioned as a breeding ground for the species, although it is, and therefore interactions between mainly juvenile individuals and establishments could have a strong impact on both animal behaviour and fish farm facilities. Similarly, studies involving bottlenose dolphin *Tursiops truncatus* should be reported.