

## Alonissos Island and the Northern Sporades Marine National Park as a Strategic Socio-Economic Node for The Culture of the Aegean Sea

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**ABSTRACT:-** The Marine National Park of Alonissos and the Northern Sporades was established in 1992 as the first marine park in all of Greece in order to safeguard the monk seal, from a possible extinction. The presence of this animal in the area is the most conspicuous of the whole Mediterranean Sea. Extending for about 2,200 square kilometers in a marine and terrestrial habitat, the Park is the largest protected marine area in the Mediterranean. The group of islands that surround Alonissos is the essential habitat for many marine species and birds as well as some species of reptiles and endangered mammals, such as the Mediterranean monk seal, whose presence in the area is the most conspicuous of all the Mediterranean. Alonissos is the management and economic-cultural center of the Park, as well as the only island in the protected marine area to be permanently inhabited.

**Keywords:** Marine Park, Protected Areas, Mediterranean Sea, socio-cultural impacts, sustainable network

### I. INTRODUCTION

The National Marine Park of Alonissos and Northern Sporades, plays a central role for the presence of naturalistic elements and biodiversity that can act as inspirational factors for the management of climate change in the area and of new development processes based on sustainability, protection and, above all, on the social, economic and cultural enhancement of the areas involved. The strategic program for the Marine National Park is structured on the basis of three key elements: a network of marine infrastructures and a terrestrial network, as well as an identity mark, for the protected marine area of Alonissos. From a geographical point of view, the marine park includes the island of Alonissos, which is the main center, the six major islands Peristera, Kyra Panagia, Gioura, Psathura, Piperi and Skantzoura and other twenty minor entities, among uninhabited little islands and outcrops rocky. This particular connotation represented a unique opportunity for the park to become strategic in terms of study and experimentation of a new approach to the so-called marine protected areas. This approach, oriented to the socio-economic and cultural development of large areas, is based on the design of new models of sustainability, protection of biodiversity and, above all, enhancement of the area. According to the ministry, which established the park management authority in 2003, the marine protected area is divided into two zones: zone a covers approximately 1,587 square kilometers, where the most stringent regulations are in force and access is permitted only following authorization by the park management authority; zone b consists of about 678 square kilometers in which the rules are less restrictive and includes Alonissos, Peristera, Lechousa and the two little islands of Adelfia.

### II. TOURISM DEVELOPMENT AND BIODIVERSITY

The tourist activities are mainly concentrated on the eastern side, between Patitiri and the centers of Steni Vala and Kalamakia, as well as in the ancient city. In the northern area and on the western side, agropastoral activities prevail: above all the cultivation of olive trees and grapevines on terraced surfaces and the breeding of goats. As for the vegetation, there are pure woods of Pino d'Aleppo, mixed forests of olive and other species typical of the Mediterranean area. The main port of the island is Patitiri, a point of docking for ferries and

hydrofoils. A little further north, in the Gulf of Votsi there is a fishing port. Steni Vala, Kalamakia and Gerakas are also fishing ports. The bay of Gerakas, in the northernmost part of the island, is the gateway to the Marine Park; in that area there is also a building conceived to host the Research Center on the monk seal, but it has never started its activity. It is possible to reach the bay of Gherakas thanks to the main communication route of the island, a road that crosses Alonissos starting from the center of Patitiri. From this main central axis branch off secondary routes connecting the various coastal towns of the island. On the island there are numerous sites and archaeological areas. In the central part there is a large artificial basin born as a freshwater reservoir. Even the invertebrate fauna is significant, including many endemic species of isopods, especially in the so-called cave of the Cyclops in Gioura. The results on biodiversity protection, achieved in these decades, have been widely monitored and made known thanks to the work carried out by the Mom, Hellenic Society for the Study and Protection of the Monk Seal, a Greek nongovernmental organization responsible for the protection of the monk seal, there are currently too few studies dedicated to the socio-economic effects caused by the establishment of the Marine Park to the various stakeholders involved in the area: fishermen, tour operators, hoteliers and owners of rented rooms, governmental and non-governmental bodies, students, national and foreign tourists. Although most of the residents of Alonissos understood the important promotional opportunity for the island within the Marine Park, according to some recent studies, significant increases in income, at the local level, were not yet recorded. This can also be explained by the fact that economic losses occurred in the local fishing sector in compliance with the restrictions imposed by the regulation of the Marine Protected Area. On the other hand, some important positive effects were noted in the tourism sector, in which direct economic benefits have been found. According to the studies currently available, the lack of coordinated efforts by the various factors involved did not allow a proper ecotourism promotion. On the one hand, the management of the Marine Park depends on the development of a strategic plan shared between all the parties involved. This plan must provide for a strong partnership between public authorities that manages the Park and local populations. On the other hand, central public power is the main stakeholder in the field. For this, a coherent and continuous national policy seems necessary, not only for conservation but also for the enhancement of the area. In this perspective, it might be useful to use some common verification methodologies for the various Mediterranean Marine Protected Areas regarding the socio-economic effects produced in quantitative terms. There is a certain perceptual disparity between government authorities and local stakeholders regarding the socio-economic benefits brought by the Marine Park to the area. Considering the potential of the territory in terms of landscape and biodiversity, an effective synergy between central government and local authorities could lead to an effective exploitation of the area starting from the improvement of road infrastructure and transport on the island, until the strengthening of continental connections by sea, the recovery of the original airport project and the greater formation and dissemination of the Park's activities. Any discussion on the further potential landscape development of Alonissos is based on the premise that tourism and economic flows affect the island only in a certain part of the year. The tourist season, which opens in the second half of May and ends at the end of September, imply for the residents a significant change in economic activity related to the tertiary sector. In recent years there has been a considerable increase in activities related to housing and catering. In addition, the development of an eco-tourism model focused on the Marine Park has induced a part of the resident population to gear up to transport groups of tourists in the islands that are around Alonissos through small boats: an effective ecotourism modality, it should provide the organization of day trips conceived as paths of knowledge rather than simple transfers to the areas to visit. In terms of human resources, a large part of the local population is employed in the best possible use of land use as well as the material resources available to the region. There is therefore a prevalence of traditional crops such as olives and vines and small quantities of fruit and vegetables are produced. A portion of the population is engaged in livestock breeding, in particular the goat. The activities of the secondary sector are limited. The production of local products has not shown significant growth, although in Alonissos there are a couple of agricultural cooperatives, including the "Women's Farming Cooperative" which sells some organic products of the island. In conclusion, the income of the residents is not constant during the year: tourism and its activities play a significant role in the summer as well as most of the fishing activity. However it is during the long winter months, with the worst weather conditions, that the income of much of the population depends almost exclusively on the primary sector. In addition, local economic flows are profoundly influenced by the fact that the younger population leaves the island to go to study or look for work opportunities somewhere else.

### III. RESEARCH EVOLUTION REGARDING THE STRATEGIC PLAN OF THE MANAGEMENT OF MARINE PARK OF ALONISSOS.

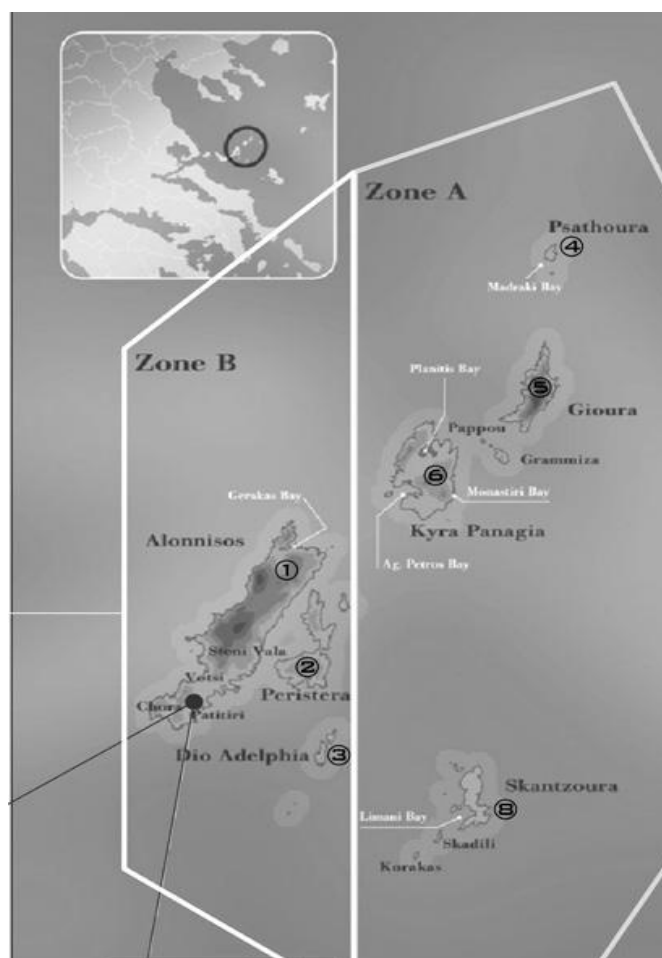
From the studies, research and proposals arising from the three workshops held in Alonissos, emerges the current lack of a necessary balance between safeguarding and cultural-tourist valorisation of the Marine Protected Area. On the basis of on-site surveys and seminars, are identified some programmatic themes for the methodological development of a project for the enhancement of the Park. The strategic program for the Marine

National Park is structured on the basis of three key elements: a network of marine infrastructures and a terrestrial network, as well as an identity mark, for the protected marine area of Alonissos. The proposal examines the various possibilities deriving from the combination of spaces, functions and users of the area, assuming a system that combines the needs of man with those of natural resources to pursue objectives of economic development, social cohesion and improvement of the quality of life of local communities. In this framework, the first element of the Marine Park's valorisation strategy is identified in the sea network defined by five cultural itineraries based around the island of Alonissos. These itineraries are distinguished on the basis of the different accessibility gradients, while maintaining a focus on the Gerakas area, which is both the Park Research Center and the gateway to the Marine Protected Area. From this point of view, the sea transport system, both external and internal, could be improved through the use of hybrid boats that guarantee a minimum environmental impact. The means of navigation alternative to the existing ones could therefore follow a series of diversified routes ensuring that the exclusive use of the electric motor reduces to the maximum the acoustic emissions, the exhaust fumes and the wave motion near the coasts. According to this project, the identified connections would not interfere with the fragile marine ecosystem but, on the contrary, a perfect harmony with the environment would be achieved through the diffusion of a scientific-cultural tourism that manages the tourist flows based on good practices. To carry out the proposed route system, the key condition could be the strengthening of the sea connection between the port of Patitiri and Euboea, through the implementation of the frequency of departures, especially during periods of greater tourist influx. This enhancement could be aimed at building a new system of "intermodal exchange nodes" both from the port of Patitiri and from that of Gerakas which, hierarchically, connect Alonissos to the other smaller islands. This would also optimize the movements along the coasts of the main island thanks to the identification of new landing points to support the routes with particular attention to the town of Gerakas, imagined as a node of five different thematic links. As a premise, the project should provide for the recovery of the headquarters of the Research Center in Gerakas which is currently inactive to make it an international scientific center for studies on the marine park ecosystem. For this reason, the Park managing authority could activate a series of partnership agreements or special agreements with interested parties such as universities and research centers. Naturally, the Center could hopefully also initiate dissemination activities for visitors to ensure an effective return in terms of advertising to the Marine Protected Area.

#### **IV. POTENTIAL FOR PARTICULAR CULTURAL ITINERARIES IN THE MARINE PARK**

From the analysis and the research carried out it is possible to list some itineraries, of sea in the park and of land in Alonissos. A first cultural itinerary could be linked to scientific research through the construction of an appropriately equipped landing place in Gerakas to allocate boats to support the Research Center. The latter could support the activities of the Park Management Authority through the installation of mobile landings with floating docks and temporary and eco-sustainable structures. For this reason, the close collaboration with the local fishermen community is essential for carrying out all the research activities related to the sea, such as sampling the fishing population. Moreover, the involvement of universities and research centers could be hypothesized. A second marine cultural itinerary could result from a link that guarantees accessibility and usability of the archaeological and naturalistic island sites, essentially for those coming from the sea. In this way the system could be set up compared to those in the interior. To this end, some areas designated for parking could be identified, generating a positive integration with visits to the cultural landscapes of Alonissos. A third cultural itinerary, still marine, could refer to a shared culture, as it concerns the connection between Alonissos and the islands of Kyra Panagia and Skantzoura, islands characterized by the presence of monasteries and archaeological areas. Within this itinerary there should also be an ideal, but also possibly real, link between the Kyra Panagia monastery and Mount Athos monastery to implement the current vocation of the area to welcome pilgrims, allowing them to stay in contact for long periods with the life of the monks. Also in this case the involvement of universities and research centers would be necessary, but aimed at the recovery, restoration and enhancement of the abandoned monastery on the island of Skantzoura. The fourth cultural itinerary, which refers to the sea crafts, could include educational and popular activities through the involvement of visitors in traditional fishing practices in the Marine Park thanks to the collaboration with the local fishing community. A fifth cultural itinerary, completely terrestrial, could cover the places of olive groves and vineyards and also of pastoralism, in close relationship with the peasants and shepherds. Finally, a cultural itinerary, which is presented as the most complete among those identified because it would allow to visit the island of Alonissos in its entirety. This would allow to know the different aspects both from a naturalistic and cultural point of view. In close connection with this last itinerary, the enhancement of the Alonissos area also involves the development of a network of land that connects the various existing and potential points of interest on the island. The hypothesized system provides a series of nodes and connections of different thematic nature, allowing the start of interdependent processes capable of self-feeding. Nodes are intended as strategic places whose spatial or

relational components assume specific meanings within an interconnected system; the connections are instead the systems that create relationships between the nodes, thus generating dynamic, physical or immaterial flows that can translate into paths based on the user's intentionality, bringing out the unexpressed or latent potential of the places. Nodes and connections are non-self-sufficient tools that take on value only if they are both present within a model that articulates five types of nodes: interchange, meeting between cultures, ensory, living, historical-cultural; with four types of connections: naturalistic, cultural, of the productive system, social; to enhance the local elements by putting them into a system, reinforcing exchanges between permanent and transitory elements of the landscape in order to develop new economies and to convince a growing number of actors. Finally, the program for the enhancement of the island includes the transformation of the model of the National Marine Park of Alonissos and the Northern Sporades into a real brand that holds together, as in a mosaic, the naturalistic, socio-cultural and tourist characteristics of the area. In fact, the sustainability of the activities carried out on the island can give life to a credible, strong, coherent and eco-compatible brand. This would effectively involve the elements that characterize the area and would develop a recognizable and potentially attractive model for European funding and for tourists.



**The area of the Marine National Park of Alonissos and the Northern Sporades with the subdivision of the two protected zones**

## V. CONCLUSIONS

In conclusion, the relevance of the National Marine Park of Alonissos and Northern Sporades, the first established in Greece and the largest by extension in the Mediterranean Sea, plays a central role for the presence of naturalistic elements and biodiversity that can act as inspirational factors of new development processes based on sustainability, protection and, above all, on the social, economic and cultural enhancement of the areas involved. The Marine Protected Areas represent an environmental and economic resource, constituting a potential element of ecotourism attraction in the context of the so-called quality tourism. Moreover, a correct management of these areas can allow, from a more specifically ecological point of view, an increase in the presence of species of flora and fauna and the reconstruction of fish stocks through the implementation of the so-called ecosystem services.

All these elements show how protected marine areas can represent an effective model of economic development. This is possible only if the actions to safeguard natural resources are connected to measures for the valorization and correct management. We must abandon the exclusively binding and protective perspective which certainly maintains a central importance - to project itself into a context of environmental economics and dynamic development. Only in this way is it possible to transform heritage into a primary asset capable of expressing all its unexpressed potential. Therefore, this approach requires new management models in the framework of local, national and supranational policies. The National Marine Park of Alonissos and Northern Sporades is the ideal context from which to move, within an integrated planning perspective, to start a network system that could result in a best practice to be disseminated.

#### REFERENCES

- [1]. Oikonomou Z. S., Dikou A., Integrating Conservation and Development at the National Marine Park of Alonissos, Northern Sporades, Greece: Perception and Practice, in Environmental Management, Vol. 42, pp.847-866, 2008
- [2]. Dikou A., Dionysopoulou N., Communicating a Marine Protected Area through the Local Press: the Case of the National Marine Park of Alonissos, Northern Sporades, Greece, in Environmental Management, Vol. 47, pp.777-788, 2011.
- [3]. Paraskevopoulos S., Tourism in Protected Areas: The Case of the National Marine Park of Alonissos-Northern Sporades in Greece, in International Journal of Social Sciences, Humanities and Education, Vol. 1, 2017, pp. 273-286.

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