

# Ecotourism in southwest Messinia, Greece - Visitation sites around Navarino bay



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## Abstract

Ecotourism has become popular during the most recent decades since its first introduction in the 1960's by Hetzer. There have subsequently appeared several definitions of the term, but most seem to agree on the point that it should benefit the environment and its belonging ecosystems, habitats and species, and simultaneously promote the well-being of the local people and their economy.

The coasts of the Mediterranean Sea attracts millions of tourists each year and this generally produces negative consequences in the shape of soil erosion, habitat destruction, scattering of litter, stressing of endangered species and a higher vulnerability to forest fires. Ecotourism has been developed as an alternative approach to tourism to ensure the sustainability of the environment in cooperation with tourism.

The area around Navarino Bay in south-western Messinia, Greece, has numerous nature locations that tourists visit. Ten of the locations were examined by observational field work, interviews and literature to investigate if they are ecotourism attractions and what possible conflicts there are between tourism and nature conservation interests. The examination showed that there are conflicts and the more notable ones are on Divari beach where the only European population of African chameleon (*Chamaeleo africanus*) lives and on Romanos beach where a population of the endangered loggerhead sea turtle (*Caretta caretta*) nests. There are, however, protection and monitoring programs of these species which are sponsored by TEMES, a luxury resort developer, and they have shown positive results regarding the populations.

## Table of contents

1. Introduction .....	4
1.1. Background .....	4
1.1.1. What is ecotourism? .....	4
1.1.2. Tourism impact on the environment .....	5
1.1.3. The impact of ecotourism.....	5
1.1.4. Tourism in the area of Navarino Bay .....	6
1.2. Aim.....	7
1.3. Limitations .....	7
1.4. Investigation area .....	8
2. Methods.....	9
3. Result.....	9
3.1. Paliokastro.....	10
3.2. Voidokilia Bay .....	11
3.3. Nestor’s cave.....	11
3.4. Niokastro (Pylos castle) .....	12
3.5. Nature Trail (at Gialova lagoon) .....	12
3.6. Bird life (at Gialova lagoon) .....	13
3.7. Kalamari waterfall.....	15
3.8. Polylimnio waterfall.....	16
3.9. Divari beach – Golden beach (African chameleon).....	17
3.10. Romanos beach (Loggerhead sea turtle).....	18
4. Discussion .....	19
5. Conclusions .....	21
6. Acknowledgments .....	21
7. References .....	21
7.1. Literature .....	21
7.2. Figures.....	25

# 1. Introduction

## 1.1. Background

### 1.1.1. What is ecotourism?

“Responsible travel to natural areas that conserves the environment and improves the well-being of local people”, that is the definition of ecotourism stated in 1990 by The International Ecotourism Society (TIES 2014b). It means that ecotourism is not merely a safari, photographing wild animals and nature, but aims to upkeep a sustainable tourism alternative where environment conservation and benefaction of local people is the objective. It is of importance to separate ecotourism from nature tourism, for the former aims to be respectful and sustainable whereas the latter simply is “tourism directly dependent on the use of natural resources in a relatively undeveloped state” (Ceballos-Lascuráin 1996). From this we assume that all ecotourism is nature tourism, but all nature tourism is not ecotourism.

The term ‘*ecotourism*’ first seems to have appeared in 1965, used by the ecologist Dr Nicolas Hetzer, to formulate four pillars which would outline a tourism industry with responsibility and respect regarding the environment, host communities, the host country’s economy and recreation of the tourists (Dowling 2013). However, the first official definition of ecotourism is attributed to Ceballos-Lascuráin in 1983, who stated that ecotourism is “traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery of its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas”, it was also he who popularized the expression (Blamey 2001; Fennell 2008; Dowling 2013). This means that ecotourism should not only intent to display nature, but also culture. It should also have some educational purpose to raise the tourists’ awareness of nature, which in itself at best promotes interest and engagement in nature conservation efforts. What Ceballos-Lascuráin fails to include in his definition of ecotourism is that, according to previous, Hetzer, and subsequent, TIES, definitions, the host community and local people should benefit from the ecotourism industry, which today is a key part of ecotourism when consulting ecotourism organizations (TIES 2014b; Ekoturismföreningen 2014).

IUCN’s (International Union for Conservation of Nature) Ecotourism Program defined ecotourism as “environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features — both past and present) that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations” (Ceballos-Lascuráin 1996).

Ecotourism is not to be confused with the term ‘*sustainable tourism*’. Sustainable tourism, like ecotourism, has numerous definitions (Butler 1999) which are not all to be accounted for here, but the World Tourist Organization has defined sustainable tourism as “Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities” and it is

supposed to be applicable on all types of tourism and tourist destinations (UNEP & UNWTO 2005). Sustainable tourism originates from the term ‘sustainable development’ (TIES 2014a), which was established by the Brundtland Commission in 1987 and defines it as “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs” (Bärlund 2014).

### **1.1.2. Tourism impact on the environment**

The world of tourism is rarely entirely environmentally friendly, not even ecotourism. In 2001, the world’s tourism’s total energy use was calculated to 14,080 PJ and a CO<sub>2</sub> emission of 1399 Mt which was estimated to be 3.2% of the world’s total energy use and 5.3% of the CO<sub>2</sub> emission (Gössling 2002). Tourism requires some sort of traveling and about 94% of tourism’s total amount of energy use and CO<sub>2</sub> emission in 2002 was due to transportation (Gössling 2002). Although car is the most important means of transportation in tourism (Gössling 2002) the dominating factor of CO<sub>2</sub> emission in tourism transport is air transportation (Peeters & Eijgelaar 2014). Air travel has the highest contribution to global warming per unit energy used than the other means of transportation and since traveling by airplane has such a high CO<sub>2</sub> emission, one can ask the question: Can tourism using air travel be counted as ecotourism at all (Gössling 2002)?

Traveling abroad is becoming more and more popular as more people can afford vacations. In 1950 there were 25 million international tourists and in 2013 the same number had risen to 1087 million (UNWTO 2014). These figures speak for themselves concerning changes in CO<sub>2</sub> emissions and tourism’s contribution to global warming.

Another problem with tourism, whether it is conventional tourism or ecotourism, is the so called ‘last chance tourism’. This means that as awareness of the consequences of the climate change is increasing, people want to visit the places most vulnerable to the change before it is too late (Eijgelaar et al. 2010). The paradox in this problem is that increased traveling to these particularly vulnerable regions in the world contributes to their hastened disappearing.

Traveling also causes transportation of species to new environments worldwide which affects the biological diversity and ecosystems (Gössling 2002) and this is happening through the homogenizing of Earth's biota so that species in new environments disrupt the natural systems (Vitousek et al. 1997).

Of course, there are many more factors that are of importance when considering tourism’s impact on the environment, such as land use, water use, energy use, spreading of diseases etc. (Gössling 2002), but it is too large a subject to be entirely covered here.

### **1.1.3. The impact of ecotourism**

There are good examples to prove that ecotourism managed properly is successful in the ways of preserving nature and giving economic benefits to local people. For example, the for-profit

company Rainforest Expedition shares management and profit with the local Ese-éja people in the Amazon and this raised their socioeconomic status by improving literacy, health and economic output and at the same time the environment and cultural integrity was preserved (Barnard 2013).

Although there are good examples of effective ecotourism, it is not uncommon that visitation has a damaging effect on the environment. As ecotourism aims to display nature, people go to previously undisturbed areas to experience natural environments. Too intense a visitation can have negative influences on ecosystems, habitats and species. It can go as far as to the extinction of species because of disturbing, trampling, collecting and buying plants and animals (Gössling 2002). This could be due to either a lack of control of the area, or intentional overexploitation by an organisation in control to gain maximum economic profit (Gössling 2002).

An important factor of ecotourism is the way it affects the tourists themselves. Traveling to natural areas builds up an understanding of the environment and changes the attitude towards it and this is a good way to possibly raise the awareness and involvement in nature conservation issues (Gössling 2002).

Popular visitation areas do tend to eventually be exploited for tourist resort purposes. Lack of respect for local conditions could reverse an area of natural values to degradation. There are, however, tourist resort companies and organisations who take responsibility for the environmental benefit of the local area. An example of this is the Costa Navarino hotel in Messinia, Greece, who work towards a sustainable tourism and is involved with monitoring and protection programs of endangered species such as the African chameleon (*Chamaeleo africanus*) and the loggerhead sea turtle (*Caretta caretta*) (Costa Navarino 2014b).

#### **1.1.4. Tourism in the area of Navarino Bay**

The Mediterranean Sea attracts millions of tourists every year and put its environment into a critical situation. Consequences of mass tourism in this area are soil erosion, habitat destruction, scattering of litter, stressing of endangered species and a higher vulnerability to forest fires (WWF 2014). The area around Navarino Bay in south-western Messinia in the Peloponnese is no exception, although efforts are being made to make tourism in this area more sustainable (Costa Navarino 2014a).

Many tourists come for the beaches, but there are also other excursion destinations to experience natural and cultural values such as waterfalls, beautiful views and ancient ruins (Giorgos Maneas, personal communication). The summer months are the most popular time to visit the area but the tourism period has expanded during recent years due to the golf courses that have been built, since most golfers come in spring and autumn (Xenophon Kappas, personal communication). Although summer is the most popular visitation time, it is at the same time the least interesting period for biodiversity (Xenophon Kappas, personal communication). The area holds a number of endangered species such as the loggerhead sea

turtle and only European population of the African chameleon and the nearby Gialova lagoon is also of great importance for bird life, especially as an essential stopover for migrating birds (Costa Navarino 2014b).

During an interview, Xenophon Kappas from the Captain Vassilis Foundation expressed thoughts of the area having huge potential for ecotourism. For example, he mentioned that links are trying to be created between tourism and agriculture. This would mean that more local products would be used in restaurants and tourist businesses such as hotels, because today most restaurants buy products from supermarkets instead of local producers. Restaurants buying goods locally would create the link between tourism and agriculture which would hence promote local gastronomy and create a positive tourism trend. Local gastronomy could then be a selling argument to attract tourists to the area.

## **1.2. Aim**

The aim of this study was to investigate the area around Navarino Bay in Messinia in southwestern Greece to find locations that are of interest for ecotourism purposes. A compilation of topical information about these locations was made and how they function as ecotourism attractions. Further, an investigation was made concerning conflicts between tourism and nature conservation. To reach the aim the following questions were asked:

- a) What sites in the proximity of Navarino Bay are of interest for ecotourism purposes?
- b) What possibilities and obstacles do the sites have when considering their attractiveness for ecotourism visitations?
- c) Are there conflicts between tourism and nature conservation interests?

## **1.3. Limitations**

The chosen locations are, of course, not the only places worth a visit in the area, but due to a limited time dedicated to field work, a certain selection had to be made. Locations have been chosen based upon touristic and natural values, and the sites are known to be visited by tourists. Not included in this study are sites that might have ecotourism potential, but are not currently tourist attractions.

There are several factors of ecotourism that are not accounted for in this study. Such a factor is for example the traveling to and from visitation sites.

Natural values in the sense of high biological diversity have not been considered since there was not time to make thorough inventories of the areas during the week of field work. The use of the term ‘natural value’ in this particular study is further explained in 2. *Methods*.

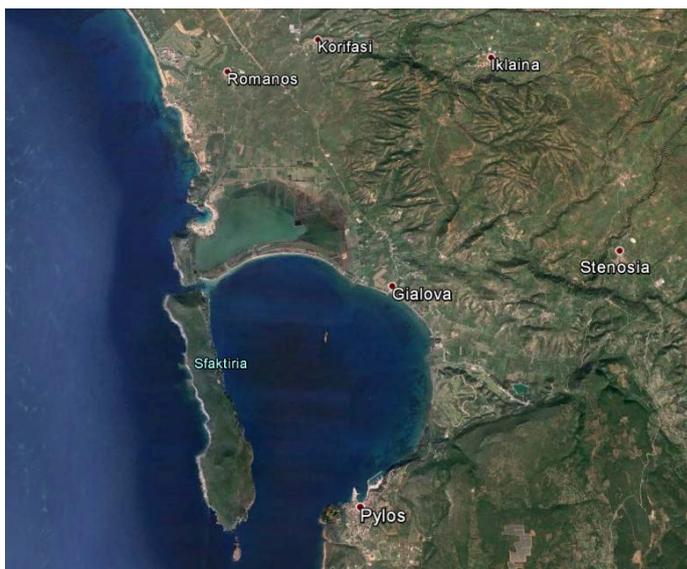
### 1.4. Investigation area

The area investigated is located in the area around Navarino bay in Messinia in south-western Greece (Figure 1). It belongs to the Mediterranean temperate shrubland biome which is characterised by draught adapted short shrublands with a tendency towards grassy woodlands and the summers are hot with water deficits and the winter is cool with water surpluses (Christopherson 2012, pg. 596-598).



**Figure 1** Map of Greece with the location of the investigation area marked in red.  
 Source: BBC (2014)

The classification of the climatic region of this area is a mesothermal Mediterranean dry-summer climate which mostly means that at least 70% of the annual precipitation occurs in the winter (Christopherson 2012, pg. 257, 267-270).



**Figure 2** The area around Navarino Bay.  
 Source: Google Earth (2014)

Messinia is a very active region tectonically and seismically because of the Hellenic Trench off the west coast, and the dominating rock type is limestone (Mariolakos et al. 1994).

The Navarino Bay was the setting of an important naval battle in 1827 where the British, French and Russian fleets destroyed the Turko-Egyptian fleet; the victory of this battle consolidated the independence of Greece (Encyclopaedia Britannica 2014).

The main land use today is agriculture. There are great

plantations with olives, but there are also plantations with citrus fruits and fields with crops among others. There are also some woodlands and shrublands, especially in mountainous areas where agriculture is made difficult due to the terrain. There are several golf courses in the area that was built in association with the Costa Navarino hotel.

The entire Navarino Bay (Figure 2), Sphaktiria Island, the nearby Gialova lagoon and some land area north of the lagoon are all part of the network of Natura 2000. This is a network of nature areas within EU that are most worth to preserve (Länsstyrelsen Skåne 2014). Plants and animals and their habitats are to be preserved and this is a protection organised by the

Birds Directive from 1979 and by the Habitats Directive from 1992 (Europa.eu 2014). Although part of the Natura 2000 network, the area does not have an actual management plan (Natura 2000 2014).

## **2. Methods**

The visitation sites are located in south-western Messinia in Greece in the area around Navarino Bay and were chosen with assistance from Giorgos Maneas, the Station Manager at the Navarino Environmental Observatory (NEO). They were places that are known to be visited by tourists and most are in the immediate proximity of the Navarino Bay; the exceptions are Kalamari waterfall (approx. 5km from Navarino Bay), Polylimnio waterfall (approx. 20 km from Navarino Bay) and Romanos beach (approx. 5km from Navarino Bay). Giorgos Maneas was also a source of information for the study area and the particular investigation sites. An interview was also held with Xenophon Kappas, the director at Captain Vassilis Foundation.

The chosen tourist sites were investigated by observation during one week of field work in the middle of May 2014. The locations were examined from a tourist point of view asking the following questions: Is the place worth visiting? How is it accessible? What are the facilities? Were there many other tourists there during the visit? What is the visitation rate during high season? Could there be any further improvement to make the places more attractive to tourists?

The locations were also examined from the view of a nature conservationist, asking the following questions: Are there any natural values that could be negatively affected by tourism exploitation? Have tourism already negatively affected any natural values? What is currently being done to prevent natural values from being negatively affected? What future measures could be taken to prevent natural values from being negatively affected?

Not all of these question's aspects were studied at all places, but where they were deemed relevant.

The term 'natural values' is here used in a broad sense, meaning anything natural worth protecting, e.g. certain species, the manner of the environment at the place as a whole, or simply the esthetical values.

The literature used in this study was part books and part articles but also webpages of organisations such as WWF, TIES (The International Ecotourism Society) and Europa.eu (the official web page of the European Union).

## **3. Result**

The chosen locations are presented here with a description of appearance, history where it is deemed relevant, accessibility and aspects concerning ecotourism values and conflicts.

### 3.1. Paliokastro

Located on a mountain west of Gialova Lagoon and at the northern end of Navarino Bay is the old Navarino castle Paliokastro (Figure 3), meaning “old castle”. It was possibly built between 1282 and 1289 and it is believed that the castle was established by Nicolas II of Saint Omer who was the commander of the barony of Thebes (information sign at Paliokastro put up by the Ministry of Culture, 2014). The castle was built to control the north entrance into Navarino Bay (Giorgos Maneas, personal communication).



**Figure 3.** Paliokastro wall with a view over the Mediterranean Sea in the background.

*Photo: Helena Berglund, 2014-05-11*

The castle is reachable by a 600 m hiking trail, mainly with an uphill slope. It is hence not accessible for physically disabled people. There is a small parking lot at the beginning of the trail. At Paliokastro there is an information sign about the history of the castle. There are no further facilities.

The view from the trail and the castle is commonly regarded very beautiful which is well worth a visit all in itself. At the time of our visit, there were some occasional other tourists, but as a whole the experience as a tourist was unspoiled by mass tourism. Quite a lot of tourists visit Paliokastro but it is evenly spread out over the year, without any particular peak, so there will never be a feeling of crowdedness (Giorgos Maneas, personal communication).

Paliokastro has both a natural value and a cultural value that all together make the place attractive for the tourist looking for a shorter hiking trip. The natural value lies mostly in the view and the experience itself, and the cultural value lies in the old castle ruin which adds a historical impression.

The tourism exploitation is at the location small so there is essentially no conflict between tourism and nature conservation interests. Since the castle itself is only accessible by the hiking trail the visitation rate still is only moderately high. A conflict could arise, however, if arrangements would be made to facilitate visitation of the castle, by for example making it possible to go by car all the way up. That would no doubt increase tourist visitation, but also destroy the experience that comes from hiking and being able to visit in an uncrowded environment.



**Figure 4.** Voidokilia Bay as seen from Paliokastro.  
*Photo: Helena Berglund, 2014-05-11*

### 3.2. Voidokilia Bay

Voidokilia Bay (Figure 4) is famous for its particularly beautiful beach, Voidokilia beach, which is shaped like an omega sign. It lies beneath the old ruin castle of Paliokastro. Because of the blue water and exceptional natural beauty the beach is popular among tourists.

The beach is reachable by car but parking space is quite small. There are no further facilities. At the time of our visit, the beach had a few visitors. Some people were

sunbathing and some were walking along the beach, there was also a dog in the company of some visitors. During the summer months, especially in July and August, the beach is very popular and it often gets very crowded (Giorgos Maneas, personal communication). Since the beach already is very popular, further actions to attract tourists do not seem necessary, although a more appropriate parking lot might be a suggestion to control where the cars are parked.

Since Voidokilia beach seems to be among the most popular beaches in the area it could function as a rallying point where tourists can be assemble. This would keep the mass tourism away from more sensitive beaches such as Romanos beach and Divari beach where there are protected and endangered species.

### 3.3. Nestor's cave

On the slope towards Paliokastro is Nestor's cave (Figure 5) which is a good stop on the way to or from the castle, but it is only accessible by foot and can be a little bit of a climb at times. The trail that goes to Nestor's cave is an extension of the trail leading to Paliokastro as described under 3.1 *Paliokastro*. There is a Greek myth telling a story of how Hermes, son of Zeus, stole cattle from Apollo and hid them in this very cave (Brooks 2008, pg. 189). There are no facilities other than the trail leading to and from the cave. At the time of our visit there were no other people there. Not many



**Figure 5.** Nestor's cave  
*Photo: Helena Berglund, 2014-05-11*

people go to Nestor's cave; usually people do not just go to the cave if they are not going to Paliokastro as well (Giorgos Maneas, personal communication).

### 3.4. Niokastro (Pylos castle)

At the south end of Navarino Bay, in the city of Pylos, is the new Navarino Castle, Niokastro (Figure 6), in oppose to Paliokastro, the old Navarino Castle. It was built by the Ottomans, starting in 1573, with the objective of controlling the south entrance into the Navarino Bay (Hellenic Republic Ministry of Culture and Sports 2014). Between 1686 and 1715 the castle was in the hands of the Venetians, before it went back in Ottoman possession and after the Greek independence war and liberation of Greece in the 19<sup>th</sup> century, the castle was used as a prison before it was given to the Archaeological Service (Hellenic Republic Ministry of Culture and Sports 2014).

Niokastro consists of an outer wall, an inner hexagon citadel and the church of Metamorphoses which originally was a mosque and there is an exhibition on maritime archaeology (Bostock 2013, pg. 170-171).

At the time of our visit the castle was closed so no examination concerning tourist facilities could be done on the inside. There is a possibility to walk around the castle on the outside to look at the view facing the Navarino Bay. Niokastro is accessible by car and there is a small parking lot outside the gate.

There is probably little natural value in Niokastro apart from the view, but the greater cultural value because of its historical significance. In the 1980's there was a restoration of the castle (Hellenic Republic Ministry of Culture and Sports 2014).

### 3.5. Nature Trail (at Gialova lagoon)

The nature trail (Figure 7) at Gialova lagoon is a 1 km trail with information signs along the way which describes the different main ecosystems and related wildlife species found in the lagoon. The ecosystems are influenced differently by the water and have become distinguished thereof.

The trail was constructed by the Hellenic Ornithological Society around the year 2000 for the purpose of educational activities and the society also cared for the maintenance of the trail until 2012 when the project stopped (Giorgos Maneas, personal communication).



**Figure 6.** Niokastro, the outside wall.  
*Photo: Helena Berglund, 2014-05-14*



**Figure 7.** Nature trail, footbridge.  
*Photo: Helena Berglund, 2014-05-11*

Next to the trail at one point is the Old Pump House, which was from 2008 used as an information center (*Chamaeleo africanus* project 2014), but it is no longer manned. Since there is nobody to inform them, fewer tourists go to visit the nature trail (Giorgos Maneas, personal communication) and it is currently in need of restoration, both the signs and the path itself. The original signposting would need improvement such as a clearer notification of where the trail runs, where it starts, etc., since the obscurity of the current signing might cause confusion.

The nature trail has potential to become a tourist attraction for people with a nature interest. The problem today is that previous efforts to maintain the trail have stopped, and it is overgrown at parts (Figure 8), and some signs need repair. In short, the nature trail's obstacle in being an attractive visitation site for tourist is the lacking maintenance and much needed information personnel.

On the other hand, sensitive species such as the African chameleon (*Chamaeleo africanus*) live in the area and increased tourism could have a detrimental effect on these species in the form of disturbance, attrition, and habitat destruction and an increase in tourism would have to be managed carefully to avoid this. Of great importance would be to keep tourists from roaming the entire area by signaling they should stay on the trail at all times.



**Figure 8.** Nature trail, the overgrown path.  
*Photo: Helena Berglund, 2014-05-11*

### 3.6. Bird life (at Gialova lagoon)

Gialova lagoon (Figure 9) is a wetland with numerous bird species, many of which are migratory. Approx. 271 bird species have been observed at the lagoon and 78 of these are endangered (Navarino Natura Hall, 2014). The Gialova lagoon is an important stopover for many migratory birds such as marsh sandpiper (*Tringa stagnatilis*), wood sandpiper (*Tringa glareola*), collared pratincole (*Glareola pratincola*), gull-billed tern (*Sterna nilotica*), little egret (*Egretta garzetta*), and glossy ibis (*Plegadis falcinellus*) (Hellenic Ornithological Society 2014).

Gialova lagoon is also part of the IBAs network (Important Bird Areas) (Bird life international 2014a) which aims to conserve a network of areas with especially rich bird diversity (Bird life international 2014b).

The lagoon is accessible by car and there is a possibility to walk around the entire lagoon. The rich bird life at Gialova lagoon attracts some visitors and some tours are arranged by the Costa Navarino hotel but it is mostly individuals who go birding at the lagoon (Giorgos Maneas, personal communication).



**Figure 9.** Gialova lagoon. View from the path around the lagoon.

*Photo: Helena Berglund, 2014-05-11*

Previously there was a bird observatory tower by the lagoon but it is not in order at this day. There are, however, some plans of building a new observatory (Giorgos Maneas, personal communication) and that could possibly increase birding tourism.

In many coastal areas, tourism is a threat to seabird populations (Hellenic Ornithological Society 2012) and recreation/tourism is estimated to be a medium threat to the lagoon and its bird inhabitants (Hellenic Ornithological Society 2014).

There is a trail that runs very close to the lagoon itself which might be of some consequence when considering tourism impact on bird life. This trail could be a disturbing element to the birds since people may come very close and this might be part of the threat. Erection of a new bird observatory could function as a rallying point for birders who, from there, can watch birds from a distance instead of walking about over large spaces and possibly frightening the birds. A correlation has also been made showing that when many birds are present, the number of visiting tourists gets larger, but as the amount of tourists increases, the number of birds decreases, and additionally the birds' minimum distance to the tourists increases (Collins-Kreiner et al. 2013). What this demonstrates is that both birds and birders benefit mutually from small tourist groups and a limited total number of tourists within a certain area.

### 3.7. Kalamari waterfall

The Kalamari waterfall feels like a hidden secret place where you are probable to find yourself alone (Figure 10). There will be some more people during high season but it will never get very crowded (Giorgos Maneas, personal communication). This waterfall is the one closest to Gialova lagoon, just south of the village Schinolaka. The waterfall is reached by a footpath that takes some 10-15 minutes to walk. The path leads at first through very tall grass which decreases as you enter a more forest-like surrounding. After a while the vegetation will be almost a tunnel of ivy which gives a sensation of being in a jungle. When reaching the river, it has to be crossed in order to reach the waterfall and this could previously be done by a small bridge (Pylos.info 2014) but at the time of our visit, there was no bridge, there was simply a log to walk on. After that, there are some basic man-made stairs with a handrail. The waterfall (Figure 11) is just up the stairs.



**Figure 10.** Kalamari waterfall, downstream the waterfall.

*Photo: Helena Berglund, 2014-05-15*

This somewhat intricate process of reaching the waterfall requires good shoes and a physique good enough to both balance the log and climb the stairs, in which case for example a person in wheelchair would not be recommended to visit. As for the bridge, there is the possibility that it is only present during high season. It would certainly make the crossing of the river easier with a bridge.



**Figure 11.** Kalamari waterfall.

*Photo: David Söderblom-Tay, 2014-05-15*

The footpath leading to Kalamari waterfall is accessible by a very bumpy dirt road. There is a small space to park the car, but it is limited to two cars if the road is not to be blocked. There are no further facilities at the place. The part of the footpath with tall grass might need maintenance in order to make it easier for tourists to use.

In conclusion, both the grassy part of the path and the crossing of the river could be facilitated. But on the other hand, this gave the visitation a little more of an adventurous impression even though it complicates the approach to the waterfall.

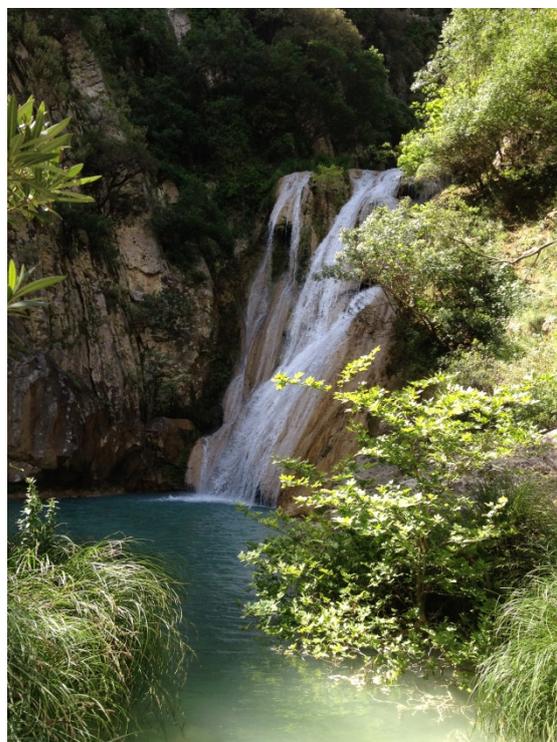
The natural value at this location naturally consists of the beauty of the waterfall, but also the atmosphere gained from surrounding vegetation and the feeling of being in a jungle. The low visitation rate of today seems to be no threat to these natural values. But if it was to increase, a conflict could arise since the crowdedness undoubtedly would reduce some natural value as the sense of experiencing a hidden secret place would diminish.

### 3.8. Polylimnio waterfall

Polylimnio is considered an extraordinarily beautiful place with a main stream, the river Kalorema, and numerous pools of varying size with an elaborate pattern of small streams and waterfalls. Following the footpath along the river a few bridges will be crossed and the path will get coarser. The tallest waterfall (Figure 12) is approx. 20 m (Bostock 2013, pg.175) and lies as far upstream as the average tourist would go. You can, however, follow the path further, but it is a steep uphill climb.

Along the path there are several trashcans and one picnic table. There are a few signs giving information and warnings to be cautious. At the beginning of the path there is a cantina which is operational during high season (Bostock 2013, pg. 175). Polylimnio is reachable by car and there is a parking lot where the trail starts.

At the time of our visit we found ourselves alone but we met some people while making our way back. There are more people visiting Polylimnio during high season, mostly while passing by on the way to Kalamata or Pylos, but the crowd tends to level off by itself, since if there are too many people, visitors are probable to go and come back at another less crowded time (Giorgos Maneas, personal communication).



**Figure 12.** Polylimnio waterfall.  
*Photo: Helena Berglund, 2014-05-15*

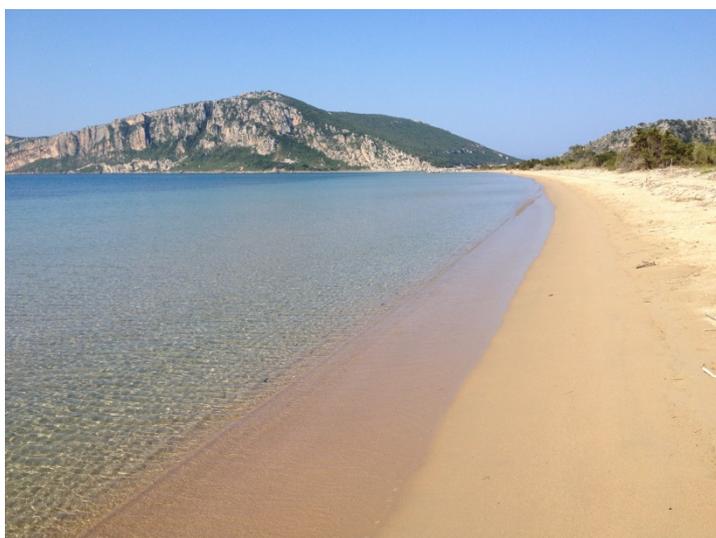
The natural value at Polylimnio is the experience of the environment. Today there does not seem to be a conflict between tourism and natural conservation interests since it is not overexploited and still has kept its natural beauty. Still, efforts have been made to keep the area clean by putting up several trashcans to be used by visitors, which is good as long as there is management of collecting the trash. Yet the presence of the trashcans and the picnic table give the signal that this is a popular visitation site, more so than several of the other visitation sites that have been presented so far.

### 3.9. Divari beach – Golden beach (African chameleon)

On the north side of the Navarino Bay, on the strip of land between Navarino Bay and Gialova lagoon, is Divari beach, also called the Golden beach (Figure 13). It has a good view over the bay towards Sfaktiria Island and Pylos.

A dirt road extends along the full length of the beach and there are spaces to park the car. There used to be a beach bar at Divari beach, but it was taken out of business in 2012 (Giorgos Maneas, personal communication). The beach is usually cleaned in the spring.

This beach is an important area for nesting for the African chameleon (Giorgos Maneas, personal communication). In the area around Gialova lagoon is the habitat of the only



**Figure 13.** Divari beach.  
*Photo: Helena Berglund, 2014-05-11*

population in Europe where this particular species of chameleon lives (Costa Navarino 2014b).

TEMES, a luxury resort developer, sponsored a protection program of the African chameleon, managed by the Hellenic Ornithological Society, which would monitor and aid the success of the hatchlings and survival of the population and raise the public awareness of the species (Costa Navarino 2014b). But seemingly the project ended in 2009/2010 due to tensions within the project group (Chamaeleo africanus

project 2014).

One threat towards the African chameleon, as well as other species, is car traffic. However, the protection program for the chameleon constructed speed bumps in 2008 and this significantly reduced the number of speeders and has proved to be effective in the prevention of road kills (Chamaeleo africanus project 2014).

Previously there was a beach bar in the summer on Divari beach and a serious conflict arose between tourism and natural conservation interests. When the beach bar was operating, the beach was very crowded and the habitat was stressed. There were held parties during nights with loud music and lights, there were more beach chairs and umbrellas put up than agreed, enormous amounts of trash and litter were spread around the area by tourists, the traffic increased immensely and areas around the beach bar were used as toilets (Chamaeleo africanus project 2014). The nesting of the chameleons on this beach was negatively affected by this activity because their habitat was being abused and the light misled the young

hatchling chameleons. In 2012 the beach bar closed and since then the stress of the habitat has decreased (Giorgos Maneas, personal communication).

### 3.10. Romanos beach (Loggerhead sea turtle)

Facing the open of the Mediterranean Sea lays Romanos beach which is located north of the Navarino Bay. It is the beach lying closest to the Costa Navarino hotel. The sand on Romanos beach is somewhat coarse but is finer closer to the hotel.

On the beach by the hotel there is a beach bar with accompanying sun chairs and umbrellas (Figure 14). There is also a life guard tower. There is a trashcan and sanitary facilities. The beach bar was not open at the time of our visit; supposedly it only opens in high season. Some bit from the beach bar, goals for ball sports have been put up. The beach had been cleaned from driftwood and washed up reeds (Figure 15) in the proximity of the beach bar.



**Figure 14.** Romanos beach. The beach bar is visible to the right.

*Photo: Helena Berglund, 2014-05-13*

On the north end of the beach there is another beach bar with adhering parking lot. This beach bar was open at the time of our visit and there were a few visitors.

Romanos beach is also a site of importance for the nesting of the loggerhead sea turtle



**Figure 15.** Romanos beach with washed up reeds.

*Photo: Helena Berglund, 2014-05-13*

(*Caretta caretta*). TEMES has developed a monitoring and protection program for the loggerhead sea turtle which started in 2010; this was done in association with Archelon, the Sea Turtle Protection Society of Greece (Costa Navarino 2014c). The program aims to record the population and annually chart, monitor and protect the nests on the beach (Archelon 2013). A presentation of the results from the conservation work the years 2010 and 2011 showed an increase in number of nests, fenced nests, eggs per nest and number of hatchling that reached the sea (Costa Navarino 2014c).

The hotel Costa Navarino has taken special care regarding the lighting on the buildings close to Romanos beach to ensure they do not affect the loggerhead sea turtles. Low intensity lights with special covers have been used and a natural light barrier has been raised in the form of peripheral planted shrubs (Costa Navarino 2014b).

Romanos beach is never full of visitors as they tend to gather around the beach bar, although there is a visitation peak in August (Giorgos Maneas, personal communication). This is advantageous for the loggerhead sea turtles that come to nest on the beach, because the beach is large and the tourists remain collected in one place –close to the beach bar– the remaining parts of the beach are mainly unoccupied by people.

#### **4. Discussion**

The visitation sites in the area around Navarino Bay are plenty. Ten of them are accounted for here, namely Paliokastro, Voidokilia Bay, Nestor's cave, Niokastro, the nature trail, bird life at Gialova lagoon, Kalamari and Polylimnio waterfalls, Divari (Golden) beach and Romanos beach. Of course, there are more places to visit than this selection of locations. A study with more time for field work could have covered more locations or made a more thorough investigation of the current sites. The places that were chosen are of interest for ecotourism purposes because of the natural and cultural experiences they give to the visitors by displaying fantastic views, offering information which gives an opportunity to learn about nature, providing nice hiking trails etc. Finding many visitation sites in this area was no surprise, since about 30% of all international tourist destinations are to the Mediterranean coastal areas (WWF 2014).

All of the chosen locations have, naturally, the ability to be tourist attractions and most of them are attractions. However, the nature trail at Gialova lagoon needs to be considered for restoration before it can be counted as a tourist attraction again. Also the bird observatory by the lagoon needs to be rebuilt in order to attract more visitors, although people that come to the lagoon for the purpose of watching birds will probably come whether there is a bird observatory or not. Even if all the locations are, or could be, tourist attractions, one must ask the question: are they ecotourism attractions? That is open for discussion.

There are or have been conflicts between tourism and nature conservation interests in several locations, predominantly Divari beach, Romanos beach and the bird life at Gialova lagoon. However, the protection programs for the African chameleon (*Chamaeleo africanus*) and the loggerhead sea turtle (*Caretta caretta*) seems to have been effective. The bird life would need some consideration concerning the probable current disturbance by visitors.

The solution to the tourism threat towards habitats and certain species is discussible. One way might be the spreading of information. Making tourists aware of the sensitive ecosystems and its components, cautiousness among the visitors could be awakened which would help in the management of a functional ecotourism site. The raising of awareness could also attract

tourists that come for the reason of experiencing and learning about nature instead of those who come to party. However, making people aware of, for example, certain endangered species like the African chameleon, the visitation rate could increase which would cause increased disturbance and destruction of habitats, and people might even take animals or plants home.

Although tourism causes disturbance of animals, destruction of habitats, soil erosion, change of land use etc., it also creates jobs and economic stability. Ecotourism aims to find a good balance between these aspects to create the most mutual benefit possible and at the same time help protect the ecosystem. Since ecotourism provides money to the region, there will be means to preserve the environment. This is the case with TEMES, the luxury resort developer, who sponsors protection and monitoring programs for the African chameleon and the loggerhead sea turtle, which have given positive signs regarding the populations' future.

Is it a good idea to increase tourism in the area around Navarino Bay? It is not a simple question to answer since it depends on how the increase would be conducted. Entrance fees would generate money and control the amount of tourists and consequently be a reason to maintain the locations' ecosystems in a good condition. Too great an increase would generate too much destruction. On the other hand, a decrease in tourism might cause discontinuations among local tourism businesses which would deprive people of their income and be harmful to the local economy.

An important factor of ecotourism is the well-being of local people. If this is the case in this study's chosen locations has not been investigated. However, Costa Navarino hotel claims to be using local products and producers (Costa Navarino 2014e) and they have also created 1200 jobs during construction and currently has 1000 job posts and they recruit local people to promote the local economy (Costa Navarino 2014d).

A problem with ecotourism is that it has no universal and officially accepted definition, and is therefore hard to regulate and is generally open to individual interpretation to some extent which opens up for possibilities and problems alike. The lack of a universal definition of ecotourism often leads to the misuse of the term and can quite easily be used for the purpose of so called '*greenwashing*' (Higgins-Desbiolles 2011). Greenwashing aims to mislead customers in order to make them believe that a company or a product is environmentally friendly when it is not (Greenpeace 2014). To maintain a good status of the term 'ecotourism' this problem needs to be solved, otherwise it is likely to lose its credibility since people might not believe a tourist organisation's claims to be eco (Bien 2014, pg. 7). One solution suggested by e.g. Medina (2005) is said to be certification which would promote the production of goods and services that are ecological and sustainable. Certification labels also works as a selling argument for ecotourism companies (NE 2006). Although certification could push the tourism industry towards sustainability, it could also lead to profit interests dominating over the environment interests and the result could be certifications that have too low standards to meet the environment's needs or too high to be reachable by smaller

enterprises which would cause a gap between industrial and developing countries (Medina 2005).

The source of error in this study is mainly the human factor. With one pair of eyes it is difficult to see everything of importance during observational field work; hence the included field work material in this study is only what I personally have observed. This is therefore a limiting factor to the credibility of the observational field work. Furthermore, with the limited time for field work and with the attempt to cover many locations, the possibility to be exhaustive about every location is small and consequently this study has little in-depth investigation.

## 5. Conclusions

Nature tourist attractions, with some cultural features, were found in the area. Whether or not the locations are ecotourism attractions in the general sense is still uncertain and would need further investigation regarding environmental and local population benefit. There are some conflicts between nature conservation and tourism interests, but in the area of Gialova lagoon, TEMES, a luxury resort developer, has helped preserve certain endangered species and their habitats to prevent tourism from destroying the ecosystems.

Although there are examples of successful ecotourism establishments in the world such as the Rainforest Expedition mentioned in 1.1.3. *The impact of ecotourism*, not all manage to find a good balance between environmental and economic aspect. The use of the term ‘*ecotourism*’ needs to be regulated in order to favour the environmental work in cooperation with the tourism business. This may happen with the aid from certification standards.

## 6. Acknowledgments

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## 7.2. Figures

**Figure 1.** BBC. 2014. Greece profile.

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Modification: red mark, 2014-06-12

**Figure 2.** Google Earth. The area around Navarino Bay. 2014-06-13

**Figure 3.** Paliokastro. *Photo: Helena Berglund*. 2014-05-11

**Figure 4.** Voidokilia beach. *Photo: Helena Berglund*. 2014-05-11

**Figure 5.** Nestor's cave. *Photo: Helena Berglund*. 2014-05-11

**Figure 6.** Niokastro. *Photo: Helena Berglund*. 2014-05-14

**Figure 7.** Nature trail. *Photo: Helena Berglund*. 2014-05-11

**Figure 8.** Nature trail. *Photo: Helena Berglund*. 2014-05-11

**Figure 9.** Gialova lagoon. *Photo: Helena Berglund*. 2014-05-11

**Figure 10.** Kalamari waterfall. *Photo: Helena Berglund*. 2014-05-15

**Figure 11.** Kalamari waterfall. *Photo: David Söderblom-Tay*. 2014-05-15

**Figure 12.** Polylimnio waterfall. *Photo: Helena Berglund*. 2014-05-15

**Figure 13.** Divari beach. *Photo: Helena Berglund*. 2014-05-11

**Figure 14.** Romanos beach. *Photo: Helena Berglund*. 2014-05-13

**Figure 15.** Romanos beach. *Photo: Helena Berglund*. 2014-05-13