

Projects conducted and reported

1. Underwater habitat mapping on potential Marine Park area in Petra Islands, Lesvos Island, Greece, May 2019

Brief description: Companies “Helector” and “Green to Sustain” are supporting Petra Islands Marine Park project on Lesvos Island. After many years of conducting various researches in favor of the annunciation of the marine park, this report will cover the last activity aimed at showing habitat mapping in the potential marine park of the islands of Petra. This material will present underwater transects using SCUBA diving equipment and boat GPS system.

It is expected that the conduction of habitat mapping will be used to commence finalization of Marine Park annunciation on Governmental level. This and many previous studies and field research are intended to verify environmental, economic and social baselines of the Marine Park development justification.

The habitat mapping has been conducted to help further determine certain project aspects, such as:

- Improve knowledge about which habitat we can expect on potential Marine Park;
- Verify the existence of *Posidonia oceanica*, endemic seagrass species in Mediterranean Sea;
- Verify/justified the borders of the potential marine park;
- Provide solutions and answers on many questions about the bottom of potential Marine Park;
- Validate the previous studies data base;
- Gain valuable structural information about the whole marine park area.

The scope of the habitat mapping of the potential marine park covers the following issues:

- Marine Park potential location (Area of the Potential Diving park is 0.76 sq miles or 1.97 sq km (marked with yellow line).);
- Methodology of the habitat mapping;
- Result presentation with photos.

2. Social – economic and environmental overview of the current situation on Lesvos Island, January 2018

Brief description: This Study is aimed to present collected information on key social and environmental features of Lesvos Island using a wide range of different sources:

1. Scientific literature - scientific articles, books, monographs, M.Sc. and Ph.D. theses.
2. Past projects - projects provided by universities and by a private sector.
3. Interviews –verbal communication based on information needed for this stage of project with the local community, fishermen and private tourism entities.

A thorough data investigation of this particular subject matter has shown that the University of the Aegean has provided a rich scientific base for future projects by conducting a lot of marine and land-based research on the island of Lesvos. However, there is no updated list of zoological and botanical species

specifically for the area of Petra village. Additionally, there are no updated surveys carried out with fishermen and other local tourism entities on sustainable development of the area.

3. MISSION BLUE - AVLAKI HOPE SPOT

Brief description: Over the last 13 years, a group of activist, scuba divers, professors and environmentalists have worked together to protect waters of Lesvos Island, Greece, and pronounce it as a Diving Parks. Our project is not innovational but pure environmental, where we already achieved most of the requirements by the law (underwater studies, underwater habitat mapping, underwater biodiversity lists, diving routes maps and etc.). Diving Parks are the only hope for biodiversity rebuilds, improvement of sustainable tourism products and development of sustainable fishing in Lesvos Island.

Results: We got support from Dr Sylvia Earle, the legendary oceanographer and biologist and her initiative "[Mission Blue](#)" where she has recognized our effort and included us in the worldwide network of marine protected areas – [Hope Spots](#). Hope Spots are special places that are critical to the health of the ocean — Earth's blue heart. Some Hope Spots are already formally protected, while others still need defined protection like ours. Under Dr Earle's leadership, the Mission Blue team has embarked on a series of expeditions to shed light on these vital ecosystems and ignite support to safeguard them as marine protected areas.

4. Biological purification of waste water – pilot project, Mionica, Serbia