

Short Term Scientific Mission (STSM)

Scientific Report

Participation in the Virtual Academy on Sustainable Ocean Governance – Recorded Interview on Mobile/Dynamic Aspects of Marine Conservation (Management of Shark Species Conservation)

By Ioannis Giovos

Action number: CA 15217
STSM title: Participation in the Virtual Academy on Sustainable Ocean Governance – Recorded Interview on Mobile/Dynamic Aspects of Marine Conservation (Management of Shark Species Conservation)
STSM start and end date: 16/11/2018 to 25/11/2018
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Institution: iSea, Thessaloniki
Host: Michelle E.Portman
Host Institution: Technion – Israel Institute of Technology

Purpose of the STSM

The goal of this STSM is to communicate and discuss the idea and the potential of dynamic reserves as a tool for advancing shark conservation and a specific example of marine species conservation in a geopolitically complex area. While the idea of dynamic marine reserves targeting various species is not new, one could say that in this era of revived nationalism and increasing cross-border conflicts, the challenges to cross-border cooperation for meaningful marine conservation are increasingly felt. One of the main goals of the proposal virtual interview session will be to familiarize students attending the course with: a) the connection between biodiversity preservation objectives for highly mobile species on a regional scale and how these objectives call for cutting-edge and innovation governance regimes; b) on-going regional-level governance and policy frameworks relevant to mobile and cross-boundary conservation of migratory/mobile species; and c) the type of on- the-ground field science needed as a basis of implementation. In addition, in the context of the visit, collaborations between different institutes and NGOs were sought.

Description of the work carried out during the STSM

Between the 16-21/11/2018 Ioannis visited the Morris Kahn Marine Research Station, he participated in the guitarfish survey and the shark monitoring in Hadera. Additionally, he presented the work of iSea on elasmobranch conservation in Greece and future collaborations discussed under the light of common goals.

- **Guitarfish Survey:** The guitarfish survey took place in two locations, Maagan Michael and Maayan Tzvi, and together with researchers from the Morris Kahn Marine Research Station, a big area was monitored for the presence of guitarfish, using a 50m net of 1.2m height and 25mm mesh size. Once a Guitarfish individual was captured, morphometric measurements and genetic sample were taken and the animal was tagged and released. Ioannis was trained on the methodology used for this survey.
- **Monitoring sharks in Hadera:** the participation included two visits in the field area and the monitoring of dusky sharks in the area of the Hadera power plants, using UAV. Ioannis was trained to utilize UAV for such work and on utilizing the videos collected for understanding the behavior of the species. More than 20 individuals of dusky sharks were detected and their characteristics and behavior were analysed during their monitoring.

Between the 21-25/11/2018 Ioannis travelled to Eilat in where he participated in the interview of Online Lecture with the Virtual Academy of Sustainability (<http://en.va-bne.de/>), Bremen. Course entitled: Ocean Governance for Sustainability – Challenges, Options and the Role of Science discussing about the potential of the dynamic MPAs in the Mediterranean, but also in global scale. The interview took place on the 23rd while one meeting with Michelle Portman took place before the interview on the 22nd in where the content and the goal of the interview were discussed.

iSea already collaborates with the Mediterranean Elasmobranchs Citizen Observations (M.E.C.O.) collecting data in Greece and Cyprus. During visit in Eilat a meeting with M.E.C.O. took

place during which the data collection protocol revised, the new website and the database back end discussed.

Furthermore, Ioannis visited the IUI-Eilat Interuniversity Institute Of Marine Science, he guided through the station and learned more about the running projects, he dove with researchers of the IUI, he participated in the lecture of Michelle Portman about the tools for creating marine policy and last, he visited the Underwater Observatory of Eilat together with researchers of IUI.

Description of the main results obtained

The most significant result obtained during the visit is the interview recorded regarding the dynamic MPAs. The dissemination of the interview session to a wide (virtual) community of students and scholars will help enrich and further communicate the concept, ideally contributing towards the first steps for its realization.

Moreover, Ioannis will bring back to iSea and to Greece new expertise obtained via the visit in Morris Kahn Marine Research Station that will help improving our knowledge about elasmobranchs in the country. In particular, the use of UAV is an interesting approach, never used before in Greece for pelagic shark monitoring, and given the low cost of the method, has a good potential.

The collaboration with M.E.C.O. deepened and the new website and the reformed protocol guarantee that quality data will be obtained in the future. A scientific publication

Future Collaborations

1. The collaboration with Michelle Portman and the MarCoast Ecosystem Integration Lab of Technion, on the dynamic MPAs front will be continued. iSea, will support with data and expertise any relevant action from MarCoast Ecosystem Integration Lab. In addition, iSea will try to support the work of the MarCoast Ecosystem Integration Lab with students and exchange programs.
2. Ioannis was invited for to make a presentation about the work of iSea to Technion and IUI-Eilat Interuniversity Institute Of Marine Science next year.
3. M.E.C.O. collaboration is a long term collaboration for iSea that will be continued.
4. With Morris Kahn Marine Research Station, iSea discussed possibilities for collaboration and will be jointly seek for funding regarding the monitoring of pelagic sharks in three countries (Greece, Cyprus, Israel).
5. iSea already started to collaborate with researchers of IUI-Eilat Interuniversity Institute Of Marine Science for setting up an acoustic telemetry project for monitoring sharks in Cyprus and Israel.