Some of the most serious threats to the survival of the critically endangered Mediterranean monk seal (*Monachus monachus*) are fisheries related. In order to understand the nature and extend of these threats a questionnaire survey was carried out in the National Marine Park of Alonnisos, Northern Sporades (NMPANS). The questionnaire was designed to allow the collection of information on the size and nature of the fishing sector, the main features of the marine fauna in the NMPANS, the overall fisheries-related problems in the fishery sector, as well as proposals for possible solutions. One quarter ($n=26$) of all fishermen of the island of Alonnisos operating in the Park were interviewed. The results indicate that fishing in the NMPANS is coastal and low scale. The marine mega fauna of the area is rich, both in terms of species diversity and population size. Various species of dolphins and monk seals, are observed frequently within the Park and are reported to cause problems to the fishermen. Although such damage does affect fishing gear and fish catches, it is not considered by the fishermen as the key problem for their livelihood. Based on their opinion, over- and illegal fishing are the biggest threats to their activities and most of the solutions proposed were related to stricter enforcement of the legislation and the promotion of sustainable fishing practices. Based on information from this study and the experience gained through the implementation of conservation activities in the Park over past years, an action plan was elaborated that aims in mitigating the existing conflict between Mediterranean monk seals and fishermen in the wider NMPANS area. This plan will be extended as part of a 4 year LIFE Nature project (Monk seal & Fisheries: Mitigating the conflict in Greek Seas - MOFI) aiming to mitigate monk seal and fisheries interactions at a national level.