Contribution ID: **23** Type: **oral**

The Agia Zoni II tanker accident: A case of oil spill affecting the marine environment of Saronikos Gulf, Greece

Friday, 16 January 2026 13:00 (20 minutes)

Oil spills pose a significant threat to marine ecosystems and can have severe economic impacts on sea-related countries like Greece. The Gulf of Saronikos in particular is prone to such contaminations, as it lies on one of the main shipping routes of Greece. In this work the extent and ecological impact of its most recent oil spill, caused by the sinking of the Agia Zoni II tanker in 2017, was explored. Rare studies are presented, which were carried out in situ in the poorly investigated oligotrophic marine ecosystem, just days after the oil was released. Water and sediment samples were collected from various sites over several months to analyse changes in oil hydrocarbon concentrations and composition, as well as changes in the microbial community (particularly oil-degrading bacteria). The results revealed an extensive contamination immediately after the accident. Concurrently the populations of oil-degrading bacteria increased. After three months and several clean-up activities the concentrations of petroleum hydrocarbons dropped rapidly and reached background levels. Whereas a decrease in the number of oil-degrading bacteria was observed after one month, some species persisted for several months. These results highlight the efficiency of both clean-up operations and natural degradation processes and can be used to improve post oil-spill monitoring.

Author: SCHÖNHOFF, Theodoros

Presenter: SCHÖNHOFF, Theodoros

Session Classification: Water

Track Classification: Water