

Environmental risk assessment of po- tentially hazardous wrecks in Estonian marine area

Estonian Police and Border Guard Board

BSAP-2021-146

Report prepared 10.4.2024

Executive summary of the project

As a result of a public procurement in the Estonian Public Procurement Register in March 2023, two tenders were submitted. The contract with Tuukritööde Corp. was signed on the 1st of June 2023 for the study of wrecks of destroyers S-31 laying in the bottom of Riga Bay and T22, laying in the bottom of Narva Bay (see figure 1 below). The contract with Nautic Trade Corp. was signed on the 29th of May 2023 for the study of minesweeper M37 wreck, located in the bottom of Narva Bay (see figure 1 below).



Figure 1 - location of the examined wrecks.

The underwater inspections revealed that, given the condition of the wrecks, it is unlikely that the destroyers S31 and T22 could still contain large amount of fuel. To a lesser extent, there may be fuel in piping systems and elsewhere, but locating and retrieval of such fuel may not be possible. However, the wreck of the destroyer S31 has a large number of ghost nets, i.e., lost fishing nets, and removing these would be worth considering avoiding further threats to marine life.

The wreck of the minesweeper M37 has at least one paravane (a warship's protection device against moored naval mines), probably containing up to 8 kg of mercury, that has been visually identified and should be removed. It is difficult to estimate the amount of fuel contained in the wreck, but the damage to the wreck suggests that fuel bunkers were not damaged at the time of sinking. As the vessel was based in Tallinn but sank in Narva Bay, and there was a fuel shortage at the time of the sinking, it is not plausible that the vessel would have set off with the maximum possible amount of fuel (143 tonnes). Pumping the wreck empty involves attaching taps to the wreck's hull above the fuel bunkers (hot tapping), then pumping hot water or steam into the bunkers to liquefy the fuel, and then pumping it out. There are few ghost nets on the wreck, but these do not pose a threat to the marine environment.