

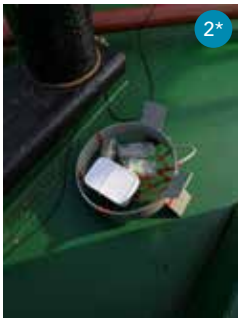
Fieldwork at World War II chemical munitions dump sites

Enormous amounts of chemical and conventional munitions were dumped in the Baltic and North Seas after the second world war. 70 years later, corrosion has taken its toll on the wrecks and containers on the seafloor.

Parts of this material is exposed to the surrounding environment resulting in chemical warfare agents being recently detected in sediments and animals, including fish, from dump sites.

[The Shirshov Institute of Oceanology](#) (SIO, Kaliningrad, Russia) and [Chalmers University of Technology](#)

(Gothenburg, Sweden) are collaborating within the [EU-Daimon project](#) on measurements, sampling, mathematical modelling and risk assessment of several dump sites. During an on-going expedition, sampling, mapping, measurements and instrument deployments are done from the R/V Akademik Boris Petrov (photo above*).



*Photo courtesy of F. Lindgren, Chalmers

1. One year [SeaGuard](#) deployments to measure Currents, Salinity, Oxygen and Temperature. These are crucial parameters to evaluate corrosion and spreading of toxic substances.
2. Multi-cage anchor to trap bottom living organisms at dump sites.
3. VRAKA-CWA software – part of the Daimon Decision Support System to determine the probability of leakage & environmental consequences. Developed at Chalmers University of Technology.
4. Tilt/accelerometer floats deployed in arrays on the bottom. Developed at Shirshov Institute of Oceanology (SIO).
5. One year of trawling tracks (yellow) at the Maseskar dump site, dots are wrecks. (Courtesy of Swedish Maritime Administration).
6. Baklan (cormorant) shear stress/turbulence profiler developed at SIO.

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