

PRELIMINARY CRUISE REPORT

Cruise name/number:	EVHOE 2023
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Authorizations:

Coastal State	Authorization Document Number	National Participant(s)
SPAIN	Num.: 117/18.2	None

Scientist in charge of reporting:

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Brief description of scientific objective:

The EVHOE groundfish survey (<https://doi.org/10.18142/8>) is part of the European program monitoring fish resources, which gather data relative to the exploited stocks (abundance, spatial distribution, maturity, age/size structure, recruitment index).

Realized on the R/V Thalassa every year in autumn, EVHOE Groundfish survey aims at collecting data on the distribution, relative abundance and biological parameters of all fish and selected commercial invertebrates in ICES subareas 8a,b (d) and 7f,g,h,j. The primary species are hake, monkfishes, megrim, cod, haddock and whiting. Data are also collected for all other demersal, pelagic fish and cephalopods as well as for the whole invertebrate megafauna. From 2016 onward, sampling design is fixed, based on a previously randomly selected set of 155 points based on bathymetric and sedimentary strata. Stations are sampled with a standard high vertical opening trawl (GOV 36/47). The time series initiated in 1987 is used every year by European stock assessment working groups to derive the exploitation state of the main commercial fish species.

Initially mainly dedicated to the study of fish component, EVHOE survey offers now the possibility to sample the entire ecosystem in order to better understand it, answering both the MSFD requirements and the need for an ecosystem approach to fisheries at the European scale. Thus, using punctual sampling and en-route recording devices, the EVHOE survey allows measurement and analysis of the physical and chemical properties of the water and phytoplankton (probe and water sampling from Niskin bottle), the zooplankton communities (WP2 plankton nets), the fish eggs abundance (CUFES egg pump) and the species composition of the whole demersal community (GOV trawls).

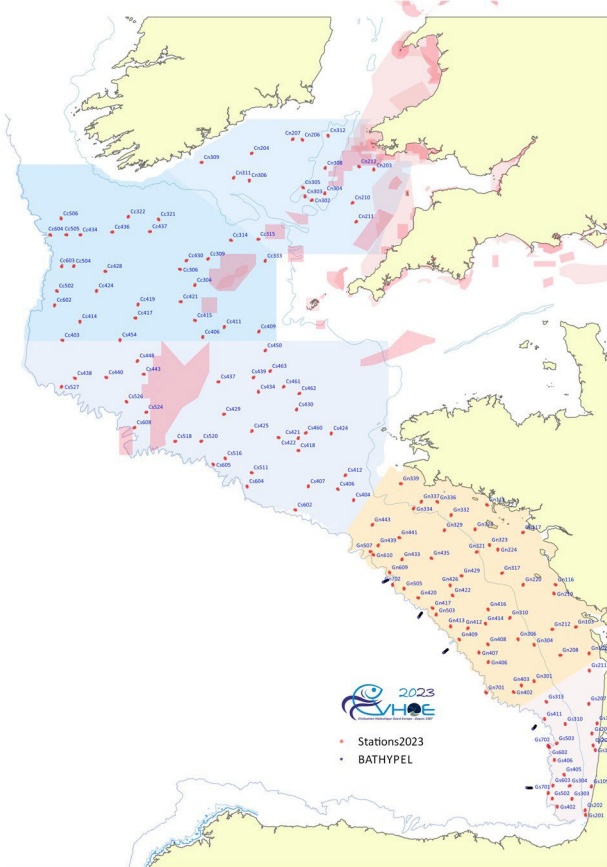
Additionally, during the night, sediment grab and acoustic records to get more insight on benthic community and habitat characteristics (sediment, bathymetry) were performed in some of the trawling stations. As part of the MSFD, micro-plastics are also quantified using the MANTA net. En-route visual observations were also conducted to record encounters of marine

birds and mammals. A few mesopelagic trawl hauls and water sampling for eDNA analysis were carried out in the southern Bay of Biscay with the objective of studying the bathy and meso-pelagic communities at the edge of the continental shelf. All sampling points of the mentioned operations are provided in figure below.

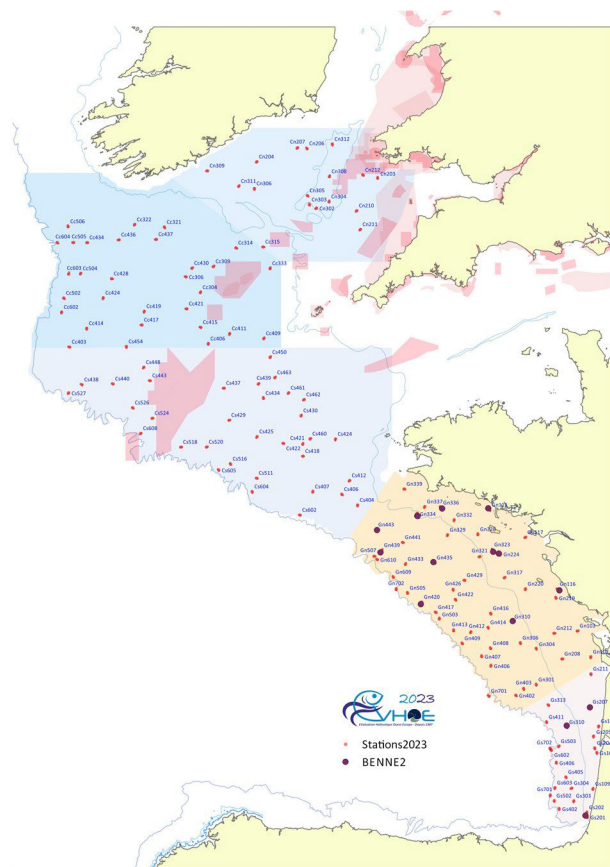
Update on anticipated dates for delivery of final results:

Metadata:	(locations of stations, variables measured, types of samples)
Raw Data:	15/01/24
Processed Data:	15/01/24
Data Analysis:	Ongoing process
WODC Data Registration (if applicable):	Accession number

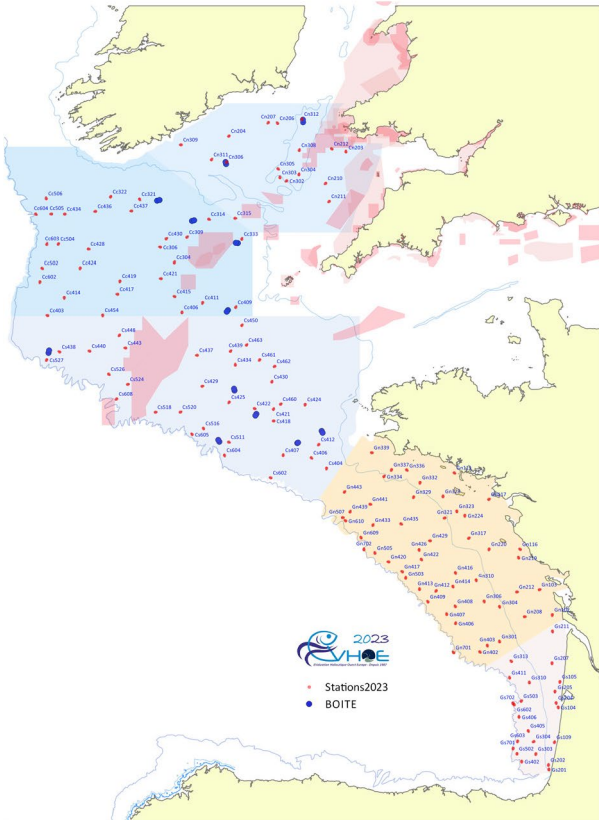
Append image or URL illustrating the route of the platform, locations where measurements were taken, and actual cruise track:



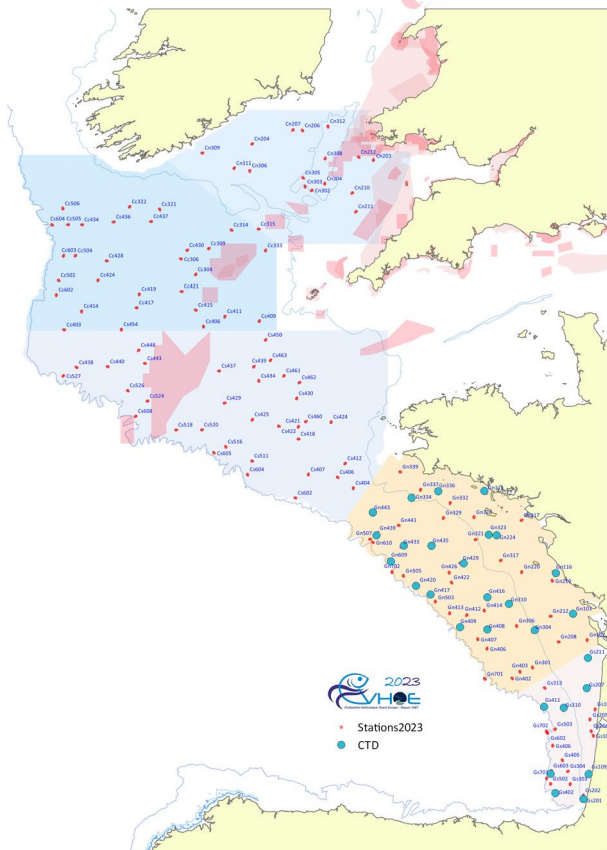
A- Bathy-pelagic trawl



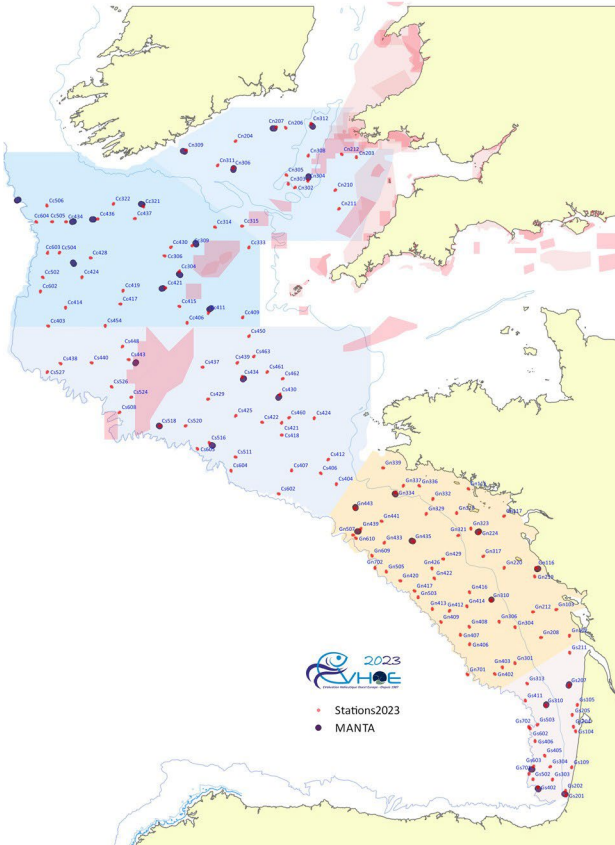
B- Sediment sledge



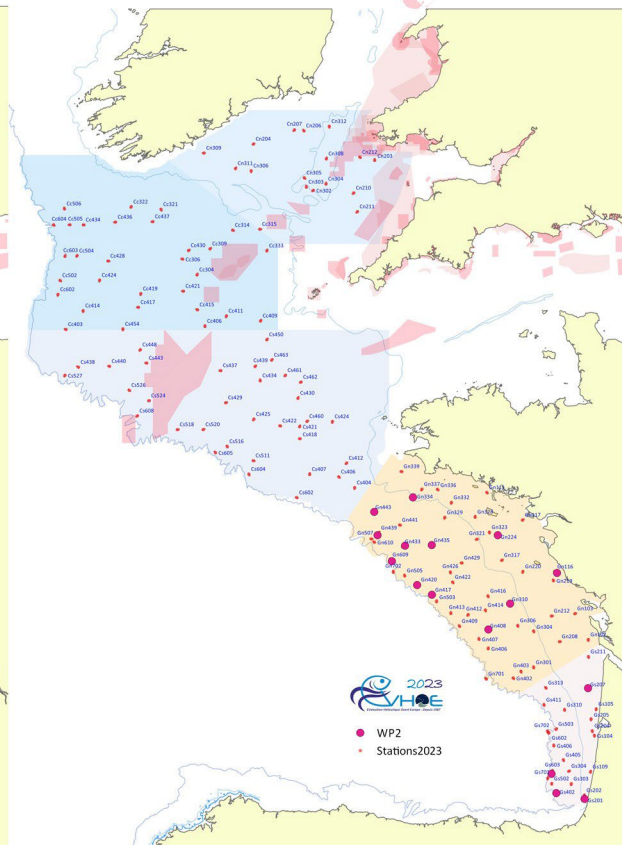
C- Multibeam echosounder (SMFH ME70)



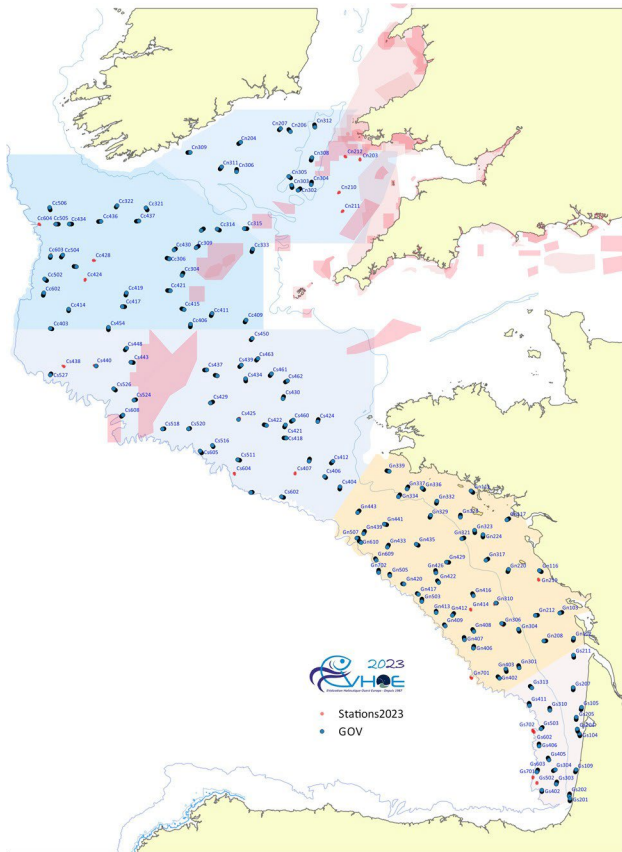
D- CTD / water sampling probe



D- Microplastic sledge ("Manta")



E- Zooplankton net (WP2)



F- Benthic trawl (GOV 36/47)