CRUISE SUMMARY	FOR COLLATING CENTRE USE					
	Centre: Ref. no:					
REPORT	Is data exchange					
KEI OKI	restricted?					
	Yes In part No					
SHIP						
Name: TRIDENS 2	Call Sign: <mark>PBVO</mark>					
Type of ship: FISHERIES RESEARCH VESSEL						
CRUISE NO./NAME: North Sea Herring and Pelagic Ecosystem Survey (HERAS) 2019						
CRUISE PERIOD start 28-06-2019 end	29-07-2019					
PORT OF DEPARTURE: SCHEVENINGEN, THE NETHERLANDS PORT OF RETURN: SCHEVENINGEN, THE NETHERLANDS RESPONSIBLE LABORATORY: Name: Wageningen Marine Research (WMR)						
Address: P.O. BOX 68 1970 AB IJMUIDEN						
HARINGKADE 1						
Country: THE NETHERLANDS						
CHIEF SCIENTIST(S)						
Bram Couperus						
OBJECTIVES AND BRIEF NARRATIVE OF CRUISE						
The objective was to carry out an hydro acoustic survey defining the abundance of herring and sprat in the North Sea						
PROJECT:						
Project name: North Sea Herring Acoustic Survey (HERAS)						
Coordinating body: ICES International Council for Exploration	of the Sea					

PRINCIPAL INVESTIGATORS:

- A. Bram Couperus, Wageningen Marine Research, P.O. Box 68, 1970 AB IJmuiden, The Netherlands
- В.
- C.
- D.
- E.
- F.

MOORINGS, BOTTOM MOUNTED GEAR AND DRIFTING SYSTEMS						
PI	APPROXIMATE POSITION			DESCRIPTION		
	Station-id ICES-rectang	latitude	longitude	their depths, whether deployed and/or recovered, dates of deployment and/or recovery, and any identifiers given to t site.		

SUMMARY OF MEASURED AND SAMPLES TAKEN						
PI	NO	UNITS	DATA TYPE	DESCRIPTION		
A	23	Hauls	B14 Sample ID's	Pelagic fish		
A	36	CTD Stations	Hydrographic data	Downcast		

TRACK CHART:

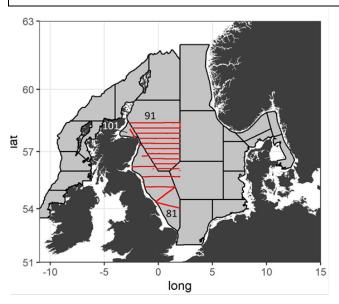
You are strongly encouraged to submit with the completed report, an annotated track chart illustrating the route followed and the points where measurements were taken.

 $\sqrt{}$ Insert a tick ($\sqrt{}$) in this box if a track chart is supplied.

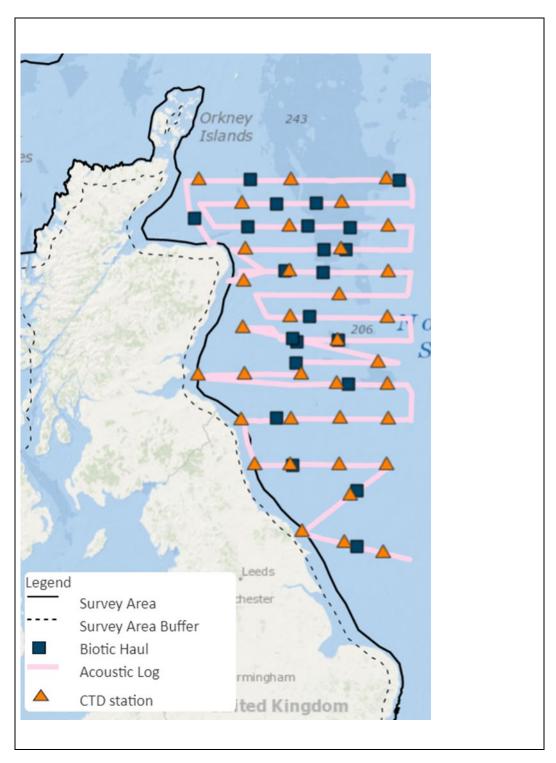
GENERAL OCEAN AREA(S):

North Sea

SPECIFIC AREAS: -



International HERAS survey strata with transects (81, part of 91 and 101 red lines) covered by R/V Tridens during the July 2019 North Sea herring acoustic survey



Map of executed cruise track (pink line), positions of trawl stations (dark blue squares), and hydrographical stations (orange triangles) during the July 2019 North Sea herring acoustic survey on R/V Tridens.

THANK YOU FOR YOUR COOPERATION

Please send your completed report without delay to the collating centre indicated on the cover page.