

<h2 style="margin: 0;">CRUISE SUMMARY REPORT</h2>	<p style="text-align: center; margin: 0;"><i>FOR COLLATING CENTRE USE</i></p> <p>Centre: _____ Ref. no: _____</p> <p>Is data exchange restricted? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p style="text-align: right; margin: 0;">Yes In part No</p>
<p>SHIP enter the full name and international radio call sign of the ship from which the data were collected, and indicate the type of ship, for example, research ship; ship of opportunity, naval survey vessel; etc.</p> <p>Name: TRIDENS Call Sign: PBVO</p> <p>Type of ship: FISHERIES RESEARCH VESSEL</p>	
<p>CRUISE NO./NAME HERAS 2004 enter the unique number, acronym assigned to the cruise (or cruise let, if appropriate).</p> <p>name or North sea Hydro Acoustic</p>	
<p>CRUISE PERIOD start 28 06 2004 to 21 7 2004 end</p> <p style="text-align: center;">(set sail) day month year day month year (return to port)</p> <p>PORT OF DEPARTURE (enter name and country) IJMUIDEN, THE NETHERLANDS</p> <p>PORT OF RETURN (enter name and country) IJMUIDEN, THE NETHERLANDS</p>	
<p>RESPONSIBLE LABORATORY</p> <p>Name: NEDERLANDS INSTITUUT VOOR VISSERIJ ONDERZOEK, NETHERLANDS INSTITUTE FOR FISHERIES RESEARCH (RIVO B.V.)</p> <p>Address: P.O. BOX 68 1970 AB IJMUIDEN HARINGKADE 1</p> <p style="text-align: right;">Country: THE NETHERLANDS</p>	
<p>CHIEF SCIENTIST(S) enter name and laboratory of the person(s) in charge of the scientific work (chief of mission) during the cruise.</p> <p>Bram Couperus, NEDERLANDS INSTITUUT VOOR VISSERIJ ONDERZOEK, NETHERLANDS INSTITUTE FOR FISHERIES RESEARCH (RIVO B.V.)</p>	
<p>OBJECTIVES AND BRIEF NARRATIVE OF CRUISE enter sufficient information about the purpose and nature of the cruise so as to provide the context in which the reported data were collected.</p> <p>Estimate the abundance of herring and sprat in the North Sea. Input index for the assessment of the Herring and sprat stocks.</p>	
<p>PROJECT (IF APPLICABLE) if the cruise is designated as part of a larger scale cooperative project (or expedition or programme), then enter the name of the project, and of the organisation responsible for coordinating the project.</p> <p>Project name:</p> <p>Coordinating body: ICES Planning Group for Herring Surveys (PGHERS)</p>	

PRINCIPAL INVESTIGATORS: Enter the name and address of the Principal Investigators responsible for the data collected on the cruise, and who may be contacted for further information about the data (The letter assigned below against each Principal Investigator is used on pages 2 and 3, under the column heading 'PI', to identify the data sets for which he/she is responsible)

A. Bram Couperus

B.

C.

D.

E.

F.

MOORINGS, BOTTOM MOUNTED GEAR AND DRIFTING SYSTEMS

PI	APPROXIMATE POSITION		DATA TYPE	DESCRIPTION
	LATITUDE	LONGITUDE		
see top of page	deg min	deg min	enter code(s) from list on cover page	identify, as appropriate, the nature of the instrumentation, the parameters (to be) measured, the number of instruments and their depths, whether deployed and/or recovered, dates of deployment and/or recovery, and any identifiers given to the site.
	N/S	E/W		

SUMMARY OF MEASURED AND SAMPLES TAKEN

Except for the data already described on page 2 under "Moorings, Bottom Mounted Gear and Drifting Systems", this section should include a summary of all data collected on the cruise, whether they be measurements (e.g. temperature, salinity values) or samples (e.g. cores, net hauls).

Separate entries should be made for each distinct and coherent set of measurements of samples. Different modes of data collection (e.g. vertical profiles as opposed to underway measurements) should be clearly distinguished, as should measurement/sampling techniques that imply distinctly different accuracy's or spatial/temporal resolutions. Thus, for example, separate entries would be created for i) BT drops , ii) water bottle stations, iii) CTD casts, iv) towed CTD, v) towed undulating CTD profiler, vi) surface water intake measurements, etc.

Each data set entry should start on a new line - it's description may extend over several lines if necessary.

NO, UNITS: for each data set, enter the estimated amount of data collected expressed in terms of the number of: 'stations'; 'miles' of track; 'days' of recording; 'cores' taken; net 'hauls'; balloon 'ascents'; or whatever unit is most appropriate to the data. The amount should be entered under NO and the counting unit should be identified in plain text under 'UNITS'.

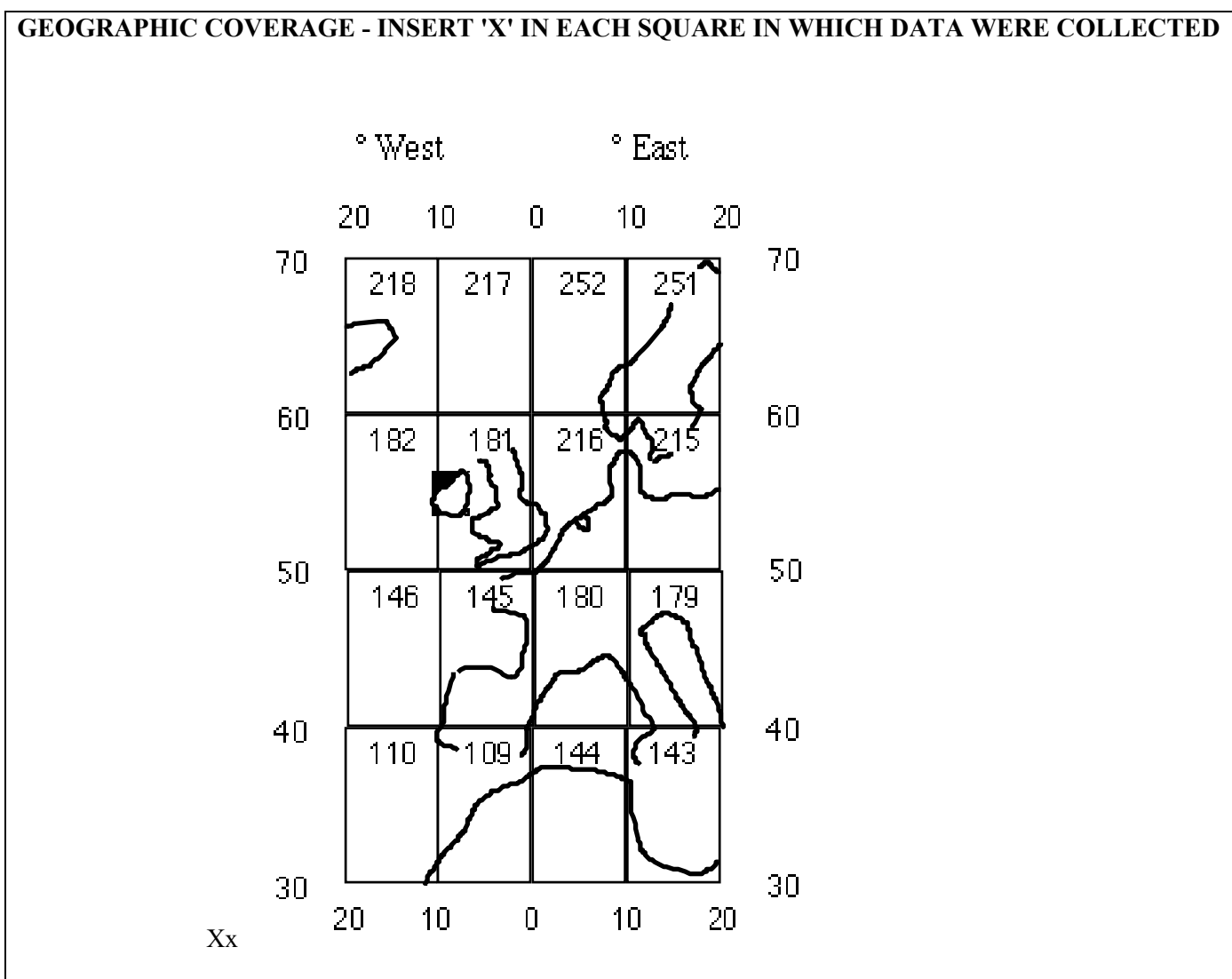
PI	NO	UNITS	DATA TYPE	DESCRIPTION
see page 2	see above	see above	enter code(s) from list on cover page	identify, as appropriate, the nature of the data and of the instrumentation/ sampling gear and list the parameters measured. Include the supplementary information that may be appropriate, e.g. vertical or horizontal profiles, depth horizons, continuous recording or discrete samples, etc. For samples taken for later analysis on shore, an indication should be given of the type of analysis planned, i.e. the purpose for which the samples were taken.
Couperus	1914	Nautical miles	Hydro acoustic data	NASC's (Nautical Area Scattering Coefficients) or SA values
Couperus	37	CTD casts	Hydrographic	Salinity, temperature, depth
Couperus	16 (13; 3)	Trawl stations	Biological data	Length frequency fishspecies, data on sex, weight, maturity, age (# biol. samples herring; biol. #samples sprat)

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.	<input type="checkbox"/> V Insert a tick (√) in this box if a track chart is supplied.
---	--

GENERAL OCEAN AREA(S): Enter the names of the oceans and/or seas in which data were collected during the cruise - please use commonly recognised names (see, for example, International, Hydrographic Bureau Special Publication No. 23, 'Limits of Oceans and Seas')

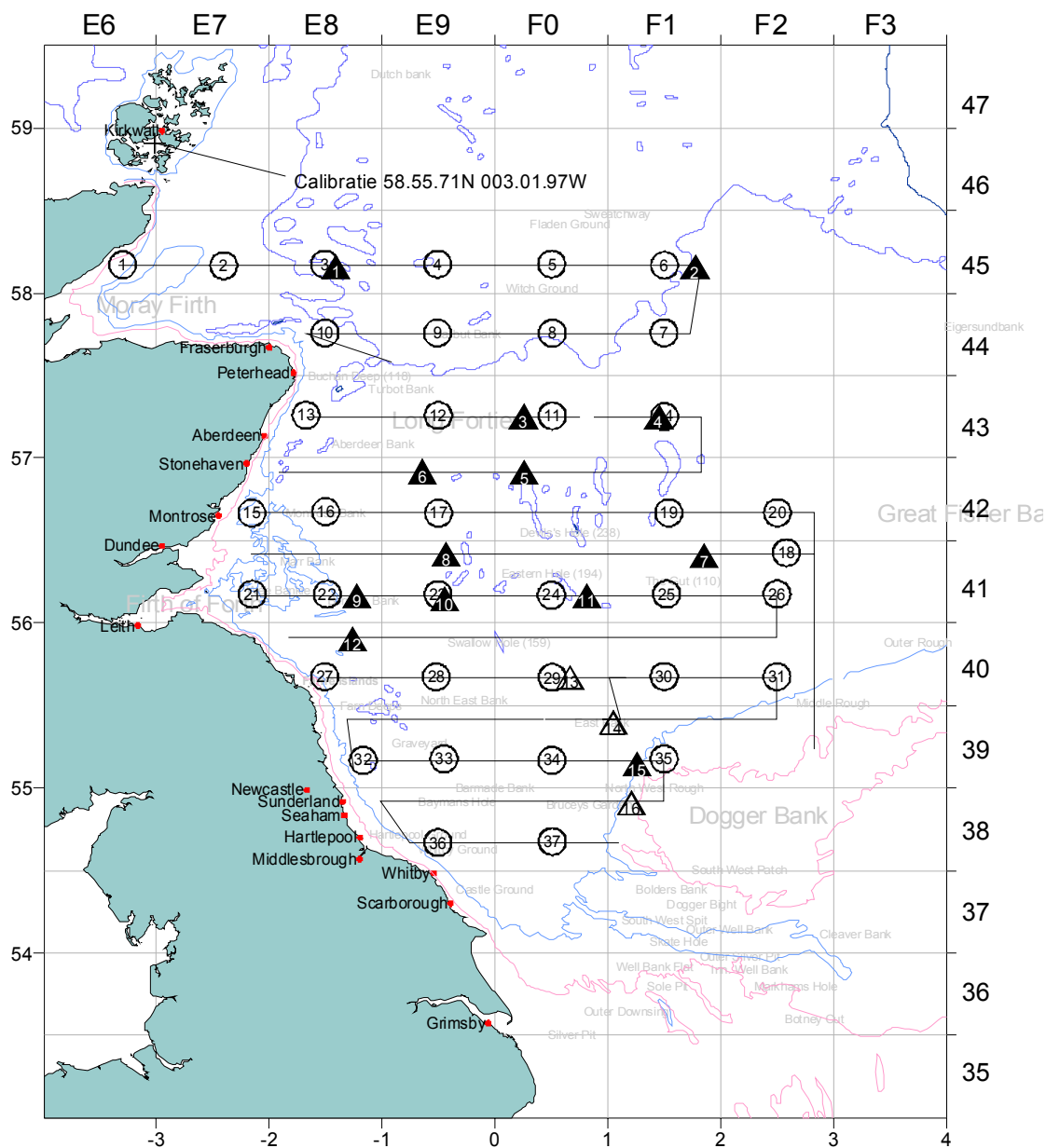
NORTH SEA

SPECIFIC AREAS: If the cruise activities were concentrated in a specific area(s) of an ocean or sea, then enter a description of the area(s). Such descriptions may include references to local geographic areas, to sea floor features, or to geographic coordinates.



THANK YOU FOR YOUR COOPERATION

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



Cruise track, RV Tridens 28 June – 21 July 2004, trawlstations without herring (open triangles), trawl stations with herring (filled triangles) and CTD stations (circles).