NOTIFICATION OF PROPOSED RESEARCH

PART A : GENERAL

1.	NAME OF RESEARCH SHIP:		TRIDENS	<u>CRUISE NO:</u> wk. 12 - 15
2.	DATES OF CRUISE	FROM	16 th of March 2020 - 1	10th of April 2020

3. OPERATING AUTHORITY

J.W. Groen Head of Department Midden Rijkswaterstaat Dienst Noordzee / RijksRederij Visitors adress: Lange Kleiweg 34, 2288 GK Rijswijk Postal adress: Postbus 5807, 2280 HV Rijswijk

TELEPHONE +31	70-3366303	TELEX	32040 Lavinl
FACSIMILE +31	70-3825648	E-MAIL W	im.Groen@rws.nl

4. <u>OWNER</u> (If different from Para 3)

5.

6.

7.

PARTICULARS OF SHIP	NAME	TRIDENS
	NATIONALITY	Dutch
	OVERALL LENGTH	73.5 METRES
	MAXIMUM DRAUGHT	5,20 METRES
	NETT TONNAGE	659
	POPULSION	DIESEL
	CALL SIGN	PBVO
•	REGISTRATION PORT (if registered fis	
CREW	NAME OF MASTER	K. Reichgeld
	NUMBER OF CREW	21
SCIENTIFIC PERSONNEL	NAME AND ADDRESS O SCIENTIST IN CHARG	
	TEL/FAX NO	+ 31 0317-487474/487326
	NO: OF SCIENTISTS	6

- 8. <u>GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE</u> (with reference in Latitude & Longitude) Western Approaches and West of Ireland, 51°N to 60°N, 5°W to 18°W.
- 9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE: To participate in ICES coordinated International Blue Whiting Survey
- 10. DATES AND NAMES OF INTEND PORTS OF CALL: Cork, Killybegs and/or Galway and/or (Ireland), Stornoway or Kirkwall (United Kingdom)
- 11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL: no

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART B : GENERAL

1.	NAME OF	RESEARCH	SHIP:	TRIDENS	CRUISE 1	NO: 1	WK.	12-15	

- 2. DATES OF CRUISE FROM 16th of March 2020 10th of April 2020
- 3. a) PURPOSE OF RESEARCH Estimate the spawning stock abundance of Blue Whiting using acoustic methods.

<u>b) GENERAL OPRATIONAL METHODS</u> (including full description of any fishing geartrawl type, mesh size etc:)
A pelagic trawl (5600 meshes), fitted out with an inner codend of 20 mm meshes, will be used for identifying the echotraces.

For the calibration the ship has to be anchored in a sheltered location, and the echosounder transducers will be calibrated by means of suspending small tungstencarbide spheres inside the acoustic beams. Transducers will be mounted on a retractable drop keel. The entire calibration operation will take approximately 3 days. A CTD profile will be taken at the calibration site. No fishing will be conducted, and no other electronic instruments other than the echosounder and the CTD will be operated. Possible locations for calibration: St. Michael's Mount (Cornwall, UK), Bantry Bay (Ireland) and Loch Eriboll (Scotland, UK)

- 4. <u>ATTACH CHART</u> showing (on an <u>appropriate</u> scale) the geographical area of the intended work, positions od intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be fished:
- 5. <u>a) TYPES OF SAMPLES REQUIRED</u> eg Geological/Water/Plankton/Fish/Radionuclide: Acoustic intensity measurements of fish densities. Fish samples. Watersamples for temperature and salinity observations. Samples of zooplankton with WP2 net

 <u>b) METHODS OF OBTAINING SAMPLES</u> (eg dredging/coring/drilling/fishing etc) (When using fishing gear indicate fish stocks being worked, quantity of each species require, quantity of fish to be retained on board)
Simrad EK60/80 & ME70 echosounders, pelagic trawl (5600 meshes), Seabird CTD device, WP2 zooplankton net 6. DETAILS OF MOORED EQUIPMENT: none

DATES

Laving	Recovery	Description	Depth	Latitude	Longitude

7. ANY HAZERDOUS MATERIAL: (Chemicals/Explosives/Gases/Radioactive etc)

(Use separate sheet if necessary) none

- a) TYPE AND TRADE NAME
- b) CHEMICAL CONTENT (& Formula)
- c) IMO IMDG CODE Reference & UN Number
- d) QUANTITY & METHOD OF STOWAGE ON BOARD
- e) IF EXPLOSIVES give date(s) of detonation
 - Method of detonation
 - Position of detonation
 - Frequency of detonation
 - Depth of detonation
 - Size of explosive charge in Kgs

8. DETAIL & REFERENCE OF:

- a) ANY RELEVANT PREVIOUS/FUTURE CRUISES:
- b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE:
- 9. NAMES AND ADDRESSES OF SCIENTISTS OF THE COASTAL STATE(S) IN WHOSE WATERS THE PROPOSED CRUISE TAKES PLACE WITH WHOM PREVIOUS CONTACT HAS BEEN MADE: Dr. Maurice Clarke, Marine Institute, Ireland Mr. Ciaran O'Donnell, Marine Institute, Ireland
- 10. STATE:
 - a) WHETHER VISITS TO THE SHIP IN PORT BY SCIENTISTS OF THE COASTAL STATE CONCERNED WILL BE ACCEPTABLE

YES

b) PARTICIPATION OF AN OBSERVER FROM THE COASTAL STATEFOR ANY PART OF THE CRUISE TOGETHER WITH THE DATES AND THE PORTS FOR EMBARKATION/DISEMBARKATION Agreements will be made by Wageningen Marine Research/IJmuiden

c) WHEN RESEARCH DATA FROM THE INTENDED CRUISE IS LIKELY TO BE MADE AVAILABLE TO THE COASTAL STATE AND BY WHAT MEANS Cruise report

PART C: SCIENTIFIC EQUIPMENT

COMPLETE THE FOLLOWING TABLE -SEPERATE PAGE FOR EACH COASTAL STATE COASTAL STATE United Kingdom/Scotland

PORT CALL Stornoway or Kirkwall

DATES 16th of March - 10th of April 2020

INDICATE "YES" OR "NO"

LIST SCIENTIFIC WORK BY FUNCTION				DISTANC	E FROM COASI		
eg: MAGNETOMETRY : GRAVITY DIVING : SEISMICS : BATHYMETRY SEABED SAMPLING TRAWLING ECHO SOUNDING : WATER SAMPLING U/W T.V. : MOORED INSTRUMENTS : TOWED INSTRUMENTS	WATER COLUMN INCLUDING SEDIMENT SAMPLING OF THE SEABED	FISHERIES RESEARCH WITHIN FISHING LIMITS	RESEARCH CONCERNING <i>THE NATURAL</i> <i>RESOURCES OF</i> <i>THE</i> <i>CONTINENTAL</i> SHELF OR ITS PHYSICAL CHARACTERISTICS	WITHIN 12 NMS	BETWEEN 12-200 NM	(CONTINENTAL SHELF WORK ONLY) BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN	Within 3-6 NMS
	YES	YES	NO	YES	YES	YES	NO

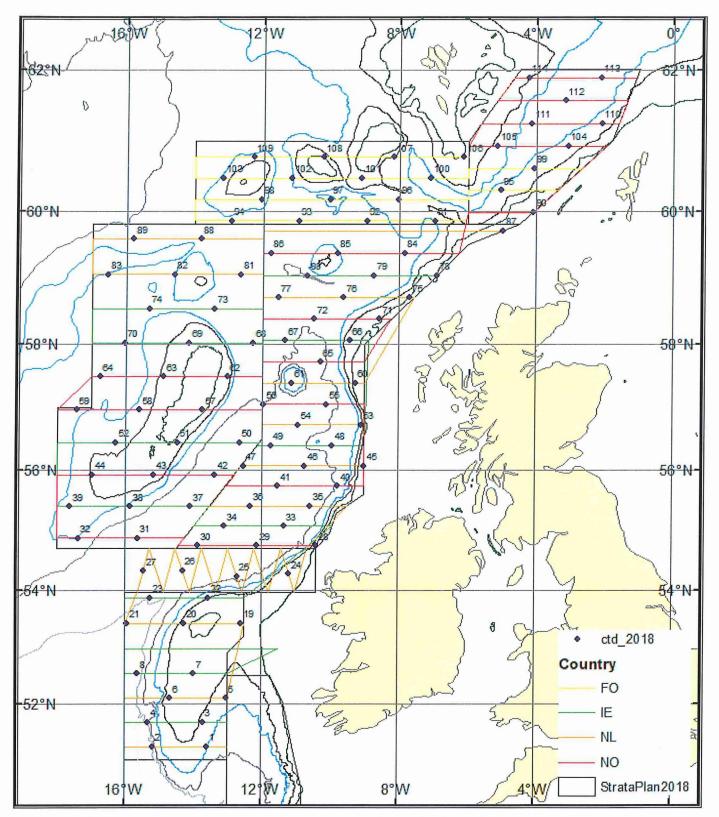
Lydia Cornelissen

(On behalf to the Principal Scientist)

Selve

Dated 18^{th} of December 2019

NB IF ANY DETAILS ARE MATERIALLY CHANGED REGARDING DATES/AREA OF OPERATION AFTER THIS FORM HAS BEEN SUBMITTED THE COASTAL STAE AUTHORITIES MUST BE NOTIFIED IMMEDIATELY.



Hydro acoustic transects in the International Blue Whiting Survey in 2018. The exact transects in 2020 are not yet known, but will be very similar. Orange transects: Netherlands. The black dots represent the approximate positions of hydrographical (CTD) stations.