NOTIFICATION OF PROPOSED RESEARCH

PART A : GENERAL

1.	NAME OF RESEARCH	SHIP:	TRIDENS	CRUISE NO: wk. 16
2.	DATES OF CRUISE	FROM	15 April 2019	TO 19 April 2019

3. <u>OPERATING AUTHORITY</u> *J.W. Groen Head of Department Midden Rijkswaterstaat Dienst Noordzee/ Rijksrederij Visitors address: Lange Kleiweg 34. 2280 HV Rijswijk Postal address: Postbus 5807, 2280 HV Rijswijk*

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FACSIMILE +31 (0) 703366303

TRIDENS

E-MAIl Wim.Groen@rws.nl

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

PARTICULARS OF SHIP

5.

6.

7.

	NATIONALITY	Dutch
	OVERALL LENGTH	73,5 METRES
	MAXIMUM DRAUGHT	<i>5,20</i> METRES
	NETT TONNAGE	659
	POPULSION	DIESEL
	CALL SIGN	PBVO
	REGISTRATION PORT (if registered fis	<u>& NUMBER</u> hing vessel)
CREW	NAME OF MASTER	K. Reichgeld
	NUMBER OF CREW	21
SCIENTIFIC PERSONNEL	NAME AND ADDRESS O SCIENTIST IN CHARG	E C.J.G. van Damme E Wageningen IMARES P.O. Box 68, IJmuiden
	TEL/FAX NO	+ 31 317 480900/487326

NAME

NO: OF SCIENTISTS 6

8. <u>GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE</u> (with reference in Latitude & Longitude) Between 50° 00' and 58° 00' N and between 01° 00' E and 09° 00' E

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE: Downs herring larvae recruitment survey

- 10. DATES AND NAMES OF INTEND PORTS OF CALL: None
- 11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL: None

PART B : GENERAL

- 1. NAME OF RESEARCH SHIP: TRIDENS CRUISE NO: wk 16
- 2. DATES OF CRUISE FROM 15-04-2019 TO 19-04-2019
- 3. a) PURPOSE OF RESEARCH To collect data of the distribution of herring larvae and to obtain hydrographical data.

b) GENERAL OPRATIONAL METHODS (including full description of any fishing geartrawl type, mesh size etc:)
Mid water ring trawl, with a 2 m diameter ring and a mesh size of 1.4 cm and 500 µm codend.

- 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: Plankton samples for analysing herring larvae. The sampler is dragged behind the vessel, while it is lowered down to approximately 5 meters above the bottom and up again. The plankton sampler is clearly NOT a bottom gear.

b) METHODS OF OBTAINING SAMPLES (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) By fishing with a plankton sampler.

6. DETAILS OF MOORED EQUIPMENT: none

DATES

Laying Recovery Description Depth Latitude Longitude

7. ANY HAZERDOUS MATERIAL: (Chemicals/Explosives/Gases/Raioactive 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: This is a new survey but will form part of the yearly herring larvae surveys carried out since 1980.

b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE: Report of the ICES workshop on North Sea herring larvae surveys, data needs and execution (WKHEH Reports of ICES Working Group of International Pelagic Surveys (WGIPS) and Herring Assessment Working Group (HAWG)

- 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: Staff members of Fishery Laboratory at Lowestoft, Hayden Close (CEFAS) Staff members of Thuenen Institute at Hamburg, Matthias Kloppmann (TI) Staff members of DTU Aqua at Copenhagen, Bastian Huwer (DTU)
- 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 Arrangements via 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

COASTAL STATE

Germany, Denmark, UK, Belgium

COMPLETE THE FOLLOWING TABLE -SEPERATE PAGE FOR EACH COASTAL STATE

PORT CALL

DATES

INDICATE "YES" OR "NO"

LIST SCIENTIFIC WORK BY FUNCTION				DISTANCE	E FROM COAS	Г	
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 THE NATURAL RESOURCES OF THE CONTINENTAL SHELF OR ITS PHYSICAL CHARACTERISTICS	WITHIN 12 NMS	BETWEEN 12-200 NB	(CONTINENTAI SHELF WORK ONLY) BEYOND 1 200 NM BUT WITHIN THE CONTINENTAL MARGIN	BEYOND 3 NM
Mid water ring trawl plankton sampler	YES	YES	NO	YES	YES	NO	NO
CTD-recorder	YES	YES	NO	YES	YES	NO	

L. Cornelissen-Schaap

(On behalf to the Principal Scientist)

Dated 15 October 2018

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.



Survey: Downs recruitment survey, Week 16 2019

Proposed sampling grid week 16 2019

Proposed station positions week 16 2019

	Latitude	Longitude
Station	(degrees.minutes)	(degrees.minutes)
1	52.15	4.15
2	52.45	4.15
3	53.15	4.15
4	53.15	4.45
5	53.45	4.45
6	53.45	5.15
7	53.45	5.45
8	53.45	6.15
9	53.45	6.45
10	53.45	7.15
11	54.15	7.45
12	54.45	7.45
13	55.15	7.45
14	55.45	7.45
15	55.45	7.15
16	55.45	6.45
17	55.45	6.15
18	55.45	5.45
19	55.45	5.15
20	55.15	4.45
21	55.15	5.15
22	55.15	5.45
23	55.15	6.15
24	55.15	6.45
25	55.15	7.15
26	54.45	7.15
27	54.15	7.15
28	54.15	6.45
29	54.45	6.45
30	54.45	6.15
31	54.15	6.15
32	54.15	5.45
33	54.45	5.45
34	54.45	5.15
35	54.15	5.15
36	54.15	4.45
37	54.45	4.45
38	54.45	4.15
39	54.15	4.15
40	54.15	3.45
41	54.15	3.15
42	53.45	3.15
43	53.45	3.45
44	53.45	4.15
45	53.15	3.45
46	53.15	3.15
47	53.15	2.45
48	52.45	2.45
49	52.45	3.15

	Latitude	Longitude	
Station	(degrees.minutes)	(degrees.minutes)	
50	52.45	3.45	
51	52.15	3.45	
52	52.15	3.15	
53	52.15	2.45	
54	52.15	2.15	
55	51.45	2.15	
56	51.15	2.15	
57	51.15	2.45	
58	51.45	2.45	
59	51.45	3.15	
60	51.45	3.45	