NOTIFICATION OF PROPOSED RESEARCH

PART A : GENERAL

1. NAME OF RESEARCH SHIP: ***TRIDENS*** CRUISE NO: **wk. 23-25**

2. DATES OF CRUISE FROM ***3 June 2019*** TO ***21 June 2019***

3. OPERATING AUTHORITY ***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

TELEPHONE ***+31 (0)703366303***

FACSIMILE ***+31 (0)703366303*** E-MAIl Wim.Groen@rws.nl

4. OWNER
(If different from Para 3)

5. 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 & NUMBER
(if registered fishing vessel)

6. CREW NAME OF MASTER ***K. Reichgeld***

NUMBER OF CREW ***21***

7. SCIENTIFIC PERSONNEL NAME AND ADDRESS OF SCIENTIST IN CHARGE ***C.J.G. van Damme***
Wageningen Marine Research
P.O. Box 68, IJmuiden

TEL/FAX NO ***+ 31 317 480900/487326***

NO: OF SCIENTISTS ***8***

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference in Latitude & Longitude)
Western Channel, ***Celtic Sea, Bay of Biscay (see attached maps)***

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE: ***Mackerel/horse mackerel egg survey 2019***

10. DATES AND NAMES OF INTEND PORTS OF CALL:

07-06-2019 till 10-06-2019 presumably Brest
14-06-2019 till 17-06-2019 presumably Lorient

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL: ***None***

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART B : GENERAL

1. NAME OF RESEARCH SHIP: ***TRIDENS*** CRUISE NO: **wk 23-25**

2. DATES OF CRUISE FROM ***03-06-2019*** TO ***21-06-2019***

3. a) PURPOSE OF RESEARCH ***Biomass estimation of mackerel and horse mackerel stock. To collect data of the distribution of mackerel and horse mackerel eggs, to collect data on fecundity of female mackerel and horse mackerel and to obtain hydrographical data.***

   b) GENERAL OPRATIONAL METHODS (including full description of any fishing geartrawl type, mesh size etc:)
   Mackerel and horse mackerel eggs will be collected with a Gulf VII plankton sampler. Mackerel and horse mackerel samples will be collected with a pelagic trawl.

4. ATTACH CHART showing (on an appropriate 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:
   See maps.

5. a) TYPES OF SAMPLES REQUIRED eg Geological/Water/Plankton/Fish/Radionuclide:
   Approximately 150 plankton samples for analysing mackerel and horse mackerel eggs. The sampler is dragged behind the vessel, while it is lowered down to approximately 5 meters above the bottom (or 200m depth maximum) and up again.
   The planktonsampler is clearly NOT a bottom gear.
   Approximately 10 hauls with a pelagic trawl to collect spawning mackerel and horse mackerel.

   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)
   Gulf VII sampler mounted with a CTD on top for fishing on eggs and pelagic trawl for taking biological fish samples.

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:
2016 mackerel/horse mackerel egg survey

b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE:
Planning of this 2019 Mackerel/Horse Mackerel Egg Survey is given in:
ICES 2018. Report of the Working Group on Mackerel and Horse Mackerel Egg Survey (WGMEGS). ICESCM 2018/EOSG: 17.
Results of the 2016 Mackerel/Horse Mackerel Egg Survey are given in:
ICES 2017. Final Report of the Working Group on Mackerel and Horse Mackerel Egg Surveys. ICESCM 2017/SSGIEOM:18.

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:
See Annex 1.

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 and results of this survey will be published in 2020 in the ICES Mackerel and horse mackerel egg survey report.

PART C: SCIENTIFIC EQUIPMENT

COASTAL STATE ***UK, France and Ireland***

COMPLETE THE FOLLOWING TABLE -
SEPERATE PAGE FOR EACH COASTAL STATE

PORT CALL

DATES

INDICATE "YES" OR "NO"

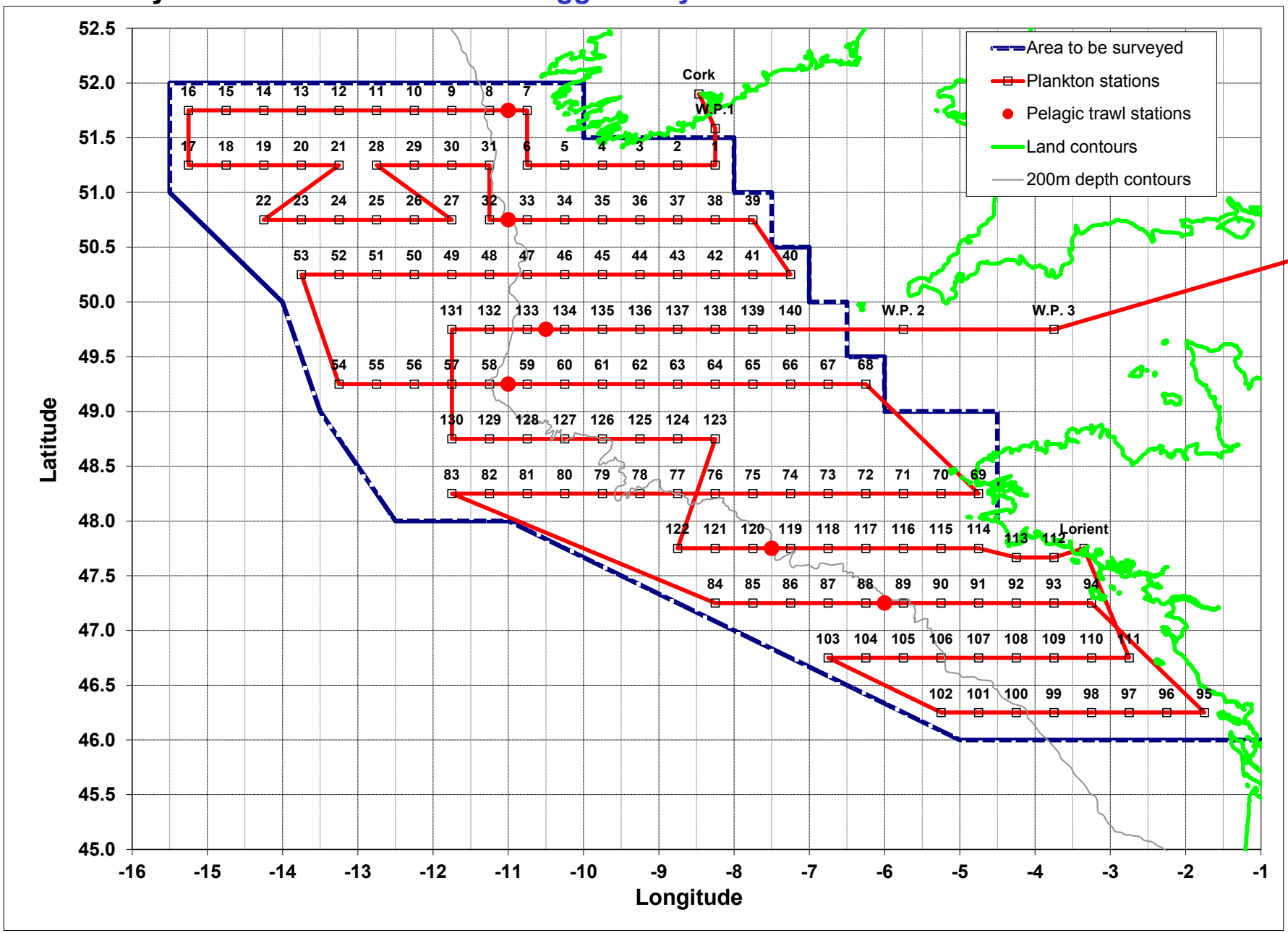
LIST SCIENTIFIC WORK BY FUNCTION eg: MAGNETOMETRY : GRAVITY DIVING : SEISMICS : BATHYMETRY SEABED SAMPLING TRAWLING ECHO SOUNDING : WATER SAMPLING U/W T.V. : MOORED INSTRUMENTS : TOWED INSTRUMENTS	WATER COLUMN INCLUDING SEDIMENT SAMPLING OF THE SEABED	FISHERIES RESEARCH WITHIN FISHING LIMITS	RESEARCH CONCERNING THE NATURAL RESOURCES OF THE CONTINENTAL SHELF OR ITS PHYSICAL CHARACTERISTICS	DISTANCE FROM COAST WITHIN 12 NMS	BETWEEN 12-200 NM	(CONTINENTAL SHELF WORK ONLY) BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN	3 NM
Gulf VII plankton sampler	YES, but no sediment sampling	YES	NO	YES	YES	NO	NO
CTD-recorder	YES, but *no sediment sampling*	YES	NO	YES	YES	NO	NO

L. Cornelissen-Schaap
(On behalf to the Principal Scientist)

Dated ***7 November 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: Mackerel Horse Mackerel Egg Survey 2019 week 23-25 Period 6



Proposed sampling grid weeks 23-25 2019

Station	Latitude (deg.min)	Longitude (deg.min)
1	51.15	-8.15
2	51.15	-8.45
3	51.15	-9.15
4	51.15	-9.45
5	51.15	-10.15
6	51.15	-10.45
7	51.45	-10.45
8	51.45	-11.15
9	51.45	-11.45
10	51.45	-12.15
11	51.45	-12.45
12	51.45	-13.15
13	51.45	-13.45
14	51.45	-14.15
15	51.45	-14.45
16	51.45	-15.15
17	51.15	-15.15
18	51.15	-14.45
19	51.15	-14.15
20	51.15	-13.45
21	51.15	-13.15
22	50.45	-14.15
23	50.45	-13.45
24	50.45	-13.15
25	50.45	-12.45
26	50.45	-12.15
27	50.45	-11.45
28	51.15	-12.45
29	51.15	-12.15
30	51.15	-11.45
31	51.15	-11.15
32	50.45	-11.15
33	50.45	-10.45
34	50.45	-10.15
35	50.45	-9.45
36	50.45	-9.15
37	50.45	-8.45
38	50.45	-8.15
39	50.45	-7.45
40	50.15	-7.15
41	50.15	-7.45
42	50.15	-8.15
43	50.15	-8.45
44	50.15	-9.15
45	50.15	-9.45
46	50.15	-10.15
47	50.15	-10.45
48	50.15	-11.15
49	50.15	-11.45
50	50.15	-12.15
51	50.15	-12.45
52	50.15	-13.15
53	50.15	-13.45
54	49.15	-13.15
55	49.15	-12.45
56	49.15	-12.15
57	49.15	-11.45
58	49.15	-11.15
59	49.15	-10.45
60	49.15	-10.15
61	49.15	-9.45
62	49.15	-9.15
63	49.15	-8.45
64	49.15	-8.15
65	49.15	-7.45
66	49.15	-7.15
67	49.15	-6.45
68	49.15	-6.15
69	48.15	-4.45
70	48.15	-5.15
71	48.15	-5.45
72	48.15	-6.15
73	48.15	-6.45
74	48.15	-7.15
75	48.15	-7.45
76	48.15	-8.15
77	48.15	-8.45
78	48.15	-9.15
79	48.15	-9.45
80	48.15	-10.15
81	48.15	-10.45
82	48.15	-11.15
83	48.15	-11.45
84	47.15	-8.15
85	47.15	-7.45
86	47.15	-7.15
87	47.15	-6.45
88	47.15	-6.15
89	47.15	-5.45
90	47.15	-5.15
91	47.15	-4.45
92	47.15	-4.15
93	47.15	-3.45
94	47.15	-3.15
95	46.15	-1.45
96	46.15	-2.15
97	46.15	-2.45
98	46.15	-3.15
99	46.15	-3.45
100	46.15	-4.15
101	46.15	-4.45
102	46.15	-5.15
103	46.45	-6.45
104	46.45	-6.15
105	46.45	-5.45
106	46.45	-5.15
107	46.45	-4.45
108	46.45	-4.15
109	46.45	-3.45
110	46.45	-3.15
111	46.45	-2.45
112	47.4	-3.45
113	47.4	-4.15
114	47.45	-4.45
115	47.45	-5.15
116	47.45	-5.45
117	47.45	-6.15
118	47.45	-6.45
119	47.45	-7.15
120	47.45	-7.45
121	47.45	-8.15
122	47.45	-8.45
123	48.45	-8.15
124	48.45	-8.45
125	48.45	-9.15
126	48.45	-9.45
127	48.45	-10.15
128	48.45	-10.45
129	48.45	-11.15
130	48.45	-11.45
131	49.45	-11.45
132	49.45	-11.15
133	49.45	-10.45
134	49.45	-10.15
135	49.45	-9.45
136	49.45	-9.15
137	49.45	-8.45
138	49.45	-8.15
139	49.45	-7.45
140	49.45	-7.15

Annex 1: Participants of the mackerel and horse mackerel egg surveys in 2019

SURNAME	NAME	INSTITUTION	E-MAIL	Country
Ulleweit	Jens	vTi	jens.ulleweit@vti.bund.de	Germany
O'Hea	Brendan	Marine Institute of Ireland	brendan.ohea@marine.ie	Ireland
Thorsen	Anders	IMR	anders.thorsen@imr.no	Norway
Van Damme	Cindy	Wageningen Marine Research	cindy.vandamme@wur.nl	Netherlands
Angelico	Maria Manuel	IPIMAR	angelico@ipimar.pt	Portugal
Riveiro	Isabel	IEO	isabel.riveiro@ieo.es	Spain
Alvarez	Paula	AZTI	palvarez@pas.azti.es	Spain (Basque country)
Burns	Finlay	MSS	F.Burns@marlab.ac.uk	U.K. (Scotland)