NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP: "Johan Hjort" CRUISE NO. 2015204

2. DATES OF CRUISE From: 07 April To: 9 May 2015

3. OPERATING AUTHORITY: Institute of Marine Research
P.O.Box 1870 Nordnes
N-5024 BERGEN NORWAY

TELEPHONE: 47-55238500
TELEFAX : 47-55238531
TELEX: 42297 OCEAN N

4. OWNER
(if different from
no. 3)

5. PARTICULARS OF SHIP: Name: "JOHAN HJORT"

Nationality: Norwegian

Overall length: 64.5 metres

Maximum draught: 6.4 metres

Net tonnage: 548 Gross: 1828

Propulsion: Diesel

Call sign: L D G J
Vessels communication:
Phone (Satcom): +47 55906400
Fax (Satcom): +47 55906401
Telex (Satcom C): +581(584) 425713910
Phone (GSM) 90528441
E-mail: johan.hjort@imr.no
Registration port and number
(if registered fishing vessel):
Bergen

6. CREW Name of master: Tommy Steffensen / John Gerhard Aasen
Number of crew: 15

7. SCIENTIFIC PERSONNEL

Name and adress of scientist in charge:
Tone Falkenhaug
Institute of Marine Research
Flodevigen Research Station
N-4817 His NORWAY

Tel/telex/fax no.:
(47) 370 59020/(47) 370 59001

No. of scientists: 9

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference to latitude and longitude)

North Sea, Skagerrak, Kattegat
55.2°N - 61° N; 11.5°E - 02° W

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

To collect data and samples on pre-selected stations as part of the IMR monitoring project «Climate and plankton in the North Sea and Skagerrak«. To sample standard transects for physical oceanographic parameters (CTD casts, nutrients and chlorphyll) and phyto- and zooplankton (including fish eggs and larvae) in the Northern North Sea, , Skagerrak and Kattegat. In addition, to undertake two studies to investigate the spatial, vertical and diel distribution of fish eggs and larvae and their potential predators and prey.

10. DATES AND NAMES OF INTENDED PORTS OF CALL

Hirtshals, Hanstholm, Skagen, Esbjerg. In the period 07 April-9 May

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

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PART B: DETAIL

1. NAME OF RESEARCH SHIP: "Johan Hjort" CRUISE NO. 2015204

2. DATES OF CRUISE From 07 April To: 9 May 2015

3. a) PURPOSE OF RESEARCH

This cruise is part of the IMR monitoring project «Climate and plankton in the North Sea and Skagerrak«. The cruise has been conducted each spring (April/May) since 2006 with the aim to provide one large coverage of the northern North Sea and Skagerrak each year. The cruise will provide horizontal and vertical distributions of physical oceanographic parameters , chemistry, phytoplankton and zooplankton in the northern North Sea, Skagerrak and Kattegat.

Pre-selected stations along standard transects will be sampled for hydrography (CTD), chemistry (nutrients and chlorophyll), phytoplankton (water samples and net tows) and zooplankton (net-tows and mocness). The cruise will also provide depth integrated distribution of fish eggs and larvae that can be related to the zooplankton and physical oceanographic data from the standard sections. In addition, studies will be undertaken to investigate the vertical and diel distribution of fish eggs and larvae and their potential predators and prey.

b) GENERAL OPERATIONAL METHODS (including full description of any fish gear, trawl type, mesh size, etc.)

CTD with water bottles, Plankton nets (WP2 180 µm, WP3 1000 µm, phytoplankton net 20 µm) , Mocness plankton sampler (180 µm), Multinet (180 µm), Small pelagic fish trawl (Harstad trawl), MIK and Gulf.

4. ATTACH CHART showing (on an appropriate scale) the geographical area of intended work, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be fished

5. a)TYPES OF SAMPLES REQUIRED (e.g., geological/water/plankton/fish/radionuclide.

Water
Plankton

b) METHODS OF OBTAINING SAMPLES (e.g., dredging/coring/drilling/fishing, etc. When using fishing gear, indicate fish stocks being worked, quantity of each species required, and quantity of fish to be retained on board

CTD with water bottles, vertical /oblique plankton hauls

6. DETAILS OF MOORED EQUIPMENT

Dates					
Laying	Recovery	Description	Depth	Latitude	Longitude

7. ANY HAZARDOUS MATERIALS (chemicals/explosives/gases/radioactives, etc.
(Use separate sheet if necessary)
a) Type and trade name NIL

b) Chemical content (and formula) NIL

c) IMO IMDG code (reference and UN no.) NIL

d) Quantity and method of storage on board NIL

e) If explosives give date(s) of detonation NIL

- Method of detonation
- Position of detonation
- Frequency of detonation
- Depth of detonation
- Size of explosive charge in kg.

8. DETAIL AND REFERENCE OF
a) Any relevant previous/future cruises

The cruise has been undertaken since 1988 in Skagerrak/Kattegat (previously named “Miljøtokt”). The coverage was extended into the North Sea from 2006 and onwards.

b) Any previously published research data relating to the proposed cruise

All data stored and reported , Cruise reports

9. NAMED 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. Colin Stedmon, Danmarks Miljøundersøgelser

10. STATE
a) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable (Yes/No)

Yes.

b) Participation of an observer from the coastal state for any part of the cruise together with the dates and the ports for embarkation and disembarkation

Yes

c) When research data from the intended cruise is likely to be made available to the coastal state and by what means

Report within 6 months. Data available at ICES

PART C. SCIENTIFIC EQUIPMENT

Complete the following table

using a separate page for

each coastal state

Coastal state: DK

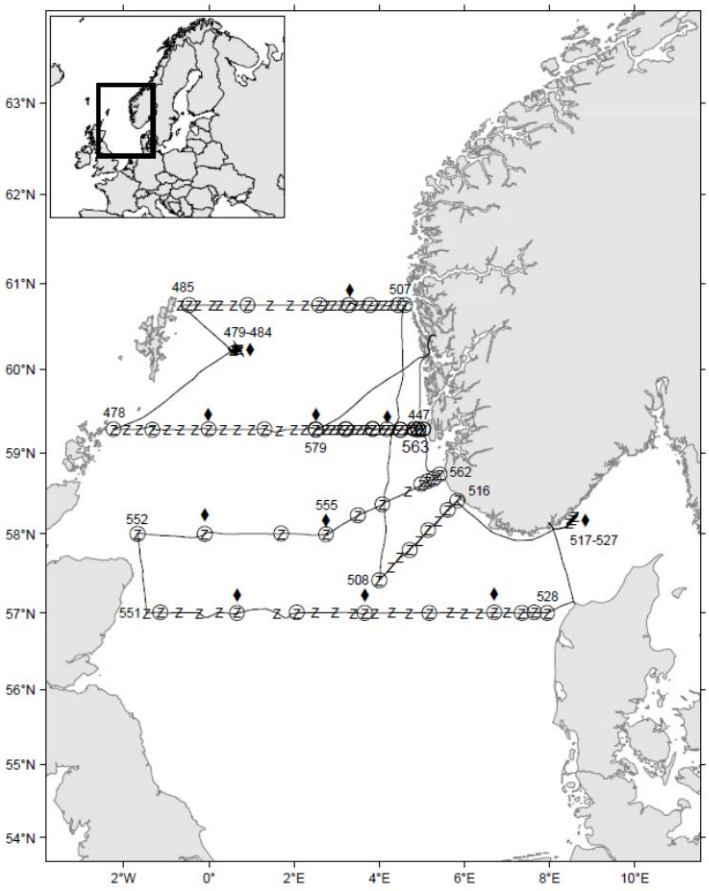
Port call: Hanstholm, Hirtshals, Skagen, Esbjerg

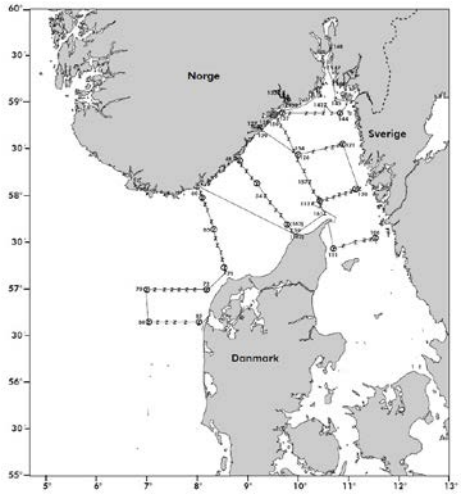
Dates: Within the period 7 April and 9 May 2015

Indicate "YES or "NO"

				Distance from coast		
List scientific work by function e.g. Magnetometry Gravity Diving Seismics Seabed sampling Bathymetry Trawling Echo sounding Water sampling U/W TV Moored instr. Towed instr.	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 characteris-tics	Within 0-4 nm	Between 4-12 nm	Between 12-200 nm
Water sampling	YES	NO	NO	NO	YES	YES
Plankton nets	YES	NO	NO	NO	YES	YES

Survey area, RV "Johan Hjort", 7 April – 9 May 2015





Torungen-Hirtshals

N	E
58°24'	08°46'
58°23'	08°50'
58°20'	08°53'
58°16'	08°59'
58°12'	09°05'
58°08'	09°11'
58°00'	09°21'
57°56'	09°27'
57°51'	09°34'
57°48'	09°40'
57°42'	09°47'
57°38'	09°52'

Oksø-Hanstholm

N	E
58°03'	08°05'
57°59'	08°06'
57°55'	08°10'
57°51'	08°12'
57°44'	08°17'
57°39'	08°20'
57°33'	08°22'
57°29'	08°25'
57°24'	08°28'
57°19'	08°30'
57°14'	08°33'
57°11'	08°34'

Jomfruland-Skagen

N	E
58°49'	09°36'
58°45'	09°40'
58°41'	09°45'
58°36'	09°49'
58°29'	09°55'
58°23'	10°00'
58°16'	10°08'
58°09'	10°14'
58°03'	10°19'
57°58'	10°24'
57°54'	10°27'
57°49'	10°32'

Hanstholm-Aberdeen

N	E
57°00'	08°11'
57°00'	07°57'
57°00'	07°48'
57°00'	07°39'
57°00'	07°30'
57°00'	07°21'
57°00'	07°10'
57°00'	07°00'

Harboør

N	E
56°39'	08°02'
56°39'	07°46'
56°39'	07°34'
56°39'	07°24'
56°39'	07°13'
56°39'	07°02'

Huseby Klit

N	E
56°10'	07°54'
56°10'	07°43'
56°10'	07°34'
56°10'	07°25'
56°10'	07°16'
56°10'	07°05'

Knude Dyb

N	E
55°19'	08°14'
55°19'	08°00'
55°19'	07°50'
55°19'	07°40'
55°19'	07°30
55°19'	07°20'
55°19'	07°10'
55°19'	07°00'

Fredrikshavn-Göteborg

N	E
57°26,0'	10°42,5'
57°27,9'	10°54,0'
57°30,3'	11°08,5'
57°32,0'	11°19,5'
57°32,3'	11°26,0'
57°33,0'	11°31,5'

Kattegat

N	E
57°11,5'	11°40,0'
56°57,5'	11°45,5
56°34,0'	12°13,0'
56°14,0'	12°22,2'
56°07,0'	11°10,0'
56°24,5	11°06,5'

Måseskär

N	E
57°55,3'	10°16,8'
57°56,8'	10°25,9'
57°58,3'	10°35,0'
57°59,5'	10°42,2'
58°00,7'	10°49,4'
58°01,9'	10°56,6'
58°03,1'	11°03,8'
58°04,0'	11°09,3'
58°04,6	11°13,2'

Väderö

N	E
58°33'	10°54'
58°33'	10°48'
58°32'	10°41'
58°31'	10°33'
58°29'	10°18'
58°26'	10°00'

Koster-Jomfruland

N	E
58°53'	10°50'
58°53'	10°40'
58°53'	10°30'
58°53'	10°20'
58°53'	10°10'
58°53'	09°50'
58°53'	09°41'