 Havforskningsinstituttet				Ref.id.: KS&SMS.5.4-02
ICES-Søknadskjema				Standard
Versjon: 1.02	Opprettet: 04.10.2012	Skrevet av: TOD	Godkjent av: PWN	Gjelder fra: 04.10.2012
				Sidenr: 1 av 5

ICES søknadsskjema

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP Kings Bay CRUISE NO. 2016844
2. DATES OF CRUISE From: 2 May 2016 To: 15 May 2016
3. OPERATING AUTHORITY: Institute of Marine Research

TELEPHONE: +47 55238500

TELEFAX : +47 55238531

TELEX: NA

4. OWNER
(if different from no. 3)
Kings Bay AS
N-6094 Leinøy, Norway
Tel + 47 90075641
bjorn@kings-bay.no

5. PARTICULARS OF SHIP:
 - Name: Kings Bay
 - Nationality: Norwegian
 - Overall length: 77,5 metres
 - Maximum draught: 7,5 metres
 - Net tonnage: 1208
 - Propulsion: Diesel-electric
 - Call sign: LCNN
 - Registration port and number: Fosnavåg/ M-22-HØ
(if registered fishing vessel)

6. CREW
 - Name of master: Bjørn Sævik
 - Number of crew: 10

7. SCIENTIFIC PERSONNEL
 - Name and adress of scientist in charge: Egil Ona
Nordnesgaten 50, Bergen, Norway
 - Tel/telex/fax no.: +47 55238500
+47 55238531
 - No. of scientists: max 7

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference to latitude and longitude)
62° 00' N -10° 00' W, 62° 00' N 15° 00' E, 73° 00' N - 10° 00' W, 73° 00' N , 15° 00' E

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE

The main goal of this survey is to quantify possible measurement bias in the standard survey for NVG herring in the Norwegian Sea in 5 selected positions (sampling squares).



ICES-Søknadskjema

Subgoals:

To measure herring in the echo sounder blind zone with 3 calibrated sonars, SU90, SH90 and SN 90.

To measure herring vertical distribution with drifting buoy, WBAT.

To measure herring vertical distribution from upward-looking WBAT on trawl door at 100 m depth.

To investigate species ID (Herring/blue whiting) in deeper layers with multifrequency and trawl experiments.

10. DATES AND NAMES OF INTENDED PORTS OF CALL

None

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL

None

NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART B: DETAIL

1. NAME OF RESEARCH SHIP Kings Bay CRUISE NO. 2016844

2. DATES OF CRUISE From 2 May 2016 To 15 May 2016

3. a) PURPOSE OF RESEARCH

The main goal of this survey is to quantify possible measurement bias in the standard survey for NVG herring in the Norwegian Sea in 5 selected positions (sampling squares).

Subgoals:

To measure herring in the echo sounder blind zone with 3 calibrated sonars, SU90, SH90 and SN 90.

To measure herring vertical distribution with drifting buoy, WBAT.

To measure herring vertical distribution from upward-looking WBAT on trawl door at 100 m depth.

To investigate species ID (Herring/blue whiting) in deeper layers with multifrequency and trawl experiments.

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

Echo surveying	Echo sounders (multibeam, keel mounted)	SIMRAD echo sounders
Sonar surveying	Fisheries sonars	SIMRAD sonar

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.

See page 4.

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

WP 2

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).

NA

6. DETAILS OF MOORED EQUIPMENT
NA

<u>Dates</u>	<u>Recovery</u>	<u>Description</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
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7. ANY HAZARDOUS MATERIALS (chemicals/explosives/gases/radioactives, etc.)
(Use separate sheet if necessary)

- a) Type and trade name: NA
- b) Chemical content (and formula)
- c) IMO IMDG code (reference and UN no.)
- d) Quantity and method of storage 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 kg.

8. DETAIL AND REFERENCE OF

- a) Any relevant previous/future cruises

Several research projects are related to the work suggested in this proposal: At IMR, these are: 10242: Absolute abundance estimation of fish; 10108, SIMFAMI (see Fernandes et al., 2006); 10697 Multi-beam sonar MBES, 13222, Implementation of sonar in abundance estimation of pelagic fish and several other internal, regular projects aiming to produce accurate acoustic estimates on pelagic fish.

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

Macaulay, G., Ona, E., Calise, L., 2013. Progress on broadband acoustic investigations of individuals and schools. ICES FAST.WG, San Sebastian, Spain, from 16–19 April 2013.

Peña, H., 2013. Improved methods for data processing from omnidirectional fisheries sonar for studying pelagic fish schools. ICES FAST WG, San Sebastian, Spain, from 16–19 April 2013.

Vatnehol, S., Totland, A., Ona, E. 2013. Calibration trials on a omni-directional fishery sonar with the split-beam method. ICES FAST WG, San Sebastian, Spain, from 16–19 April 2013.

9. NAME AND ADDRESSES OF SCIENTISTS OF THE COASTAL STATE(S) IN WHOSE WATERS THE PROPOSED CRUISE TAKES PLACE WITH WHOM PREVIOUS CONTACT HAS BEEN MADE

None

10. STATE

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

No port calls planned.

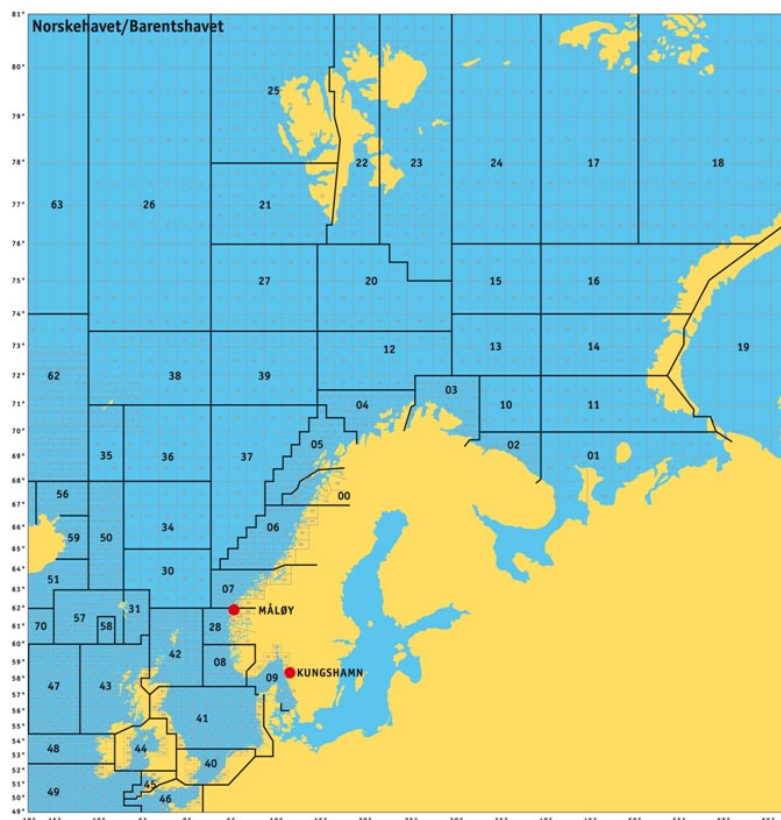
- b) Participation of an observer from the coastal state for any part of the cruise together with the dates and the ports for embarkation and disembarkation

If berth(s) is available.



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

Final report expected within 3 months after end of cruise. Access to data and samples through Institute of Marine Research database for all participating nations



The survey will be carried out inside the subareas: 07, 08, 09, 30, 34, 36, 37, 38, 39,



ICES-Søknadskjema

PART C. SCIENTIFIC EQUIPMENT

Complete the following table using a separate page for each coastal state

Coastal state: Iceland and Faroes

Port call: None

Dates

Indicate "YES or "NO"

DISTANCE FROM COAST						
List scientific work by function e.g.	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 4 nm	Between 4-12 nm	Between 12-200 nm
Magnetometry						
Gravity						
Diving						
Seismics						
Seabed sampling						
Bathymetry						
Trawling						
Echo sounding						
Water sampling						
U/W TV						
Moored instr.						
Towed instr.						

(On behalf of the Principal Scientist)

Name: Egil Ona
Country: Norway
Affiliation: Principal scientist
Address: Nordnesgaten 50, Bergen, Norway
Telephone: 55238500
Fax: 55238531
Email: egil.ona@imr.no

Date 8/4/16

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