

APPLICATION FOR A RESEARCH CRUISE WITHIN A COASTAL STATE'S FISHERY LIMITS

A. GENERAL

1. **NAME OF RESEARCH SHIP** DANA **CRUISE NO.** 07/2019
2. **DATES OF CRUISE** **FROM** 29/7 2019 **TO** 19/8 2019
3. **OPERATING AUTHORITY**
3. **OPERATING AUTHORITY** DTU Aqua (National Institute of Aquatic Resources)
Kemitorvet, Building 202
DK-2800 Kgs. Lyngby
Telephone: +45 35 88 33 00 Fax.: +45 35 88 33 33 E-mail: aqua@aqua.dtu.dk
4. **OWNER (if different for para.3)**
5. **PARTICULARS OF SHIP**

NAME	DANA
NATIONALITY	Danish
OVERALL LENGTH (metres)	80 metres
MAXIMUM DRAUGHT (metres)	6.3 metres
NET TONNAGE	669.53 t
METHOD OF PROPULSION	Steam Turbine/Diesel/Diesel Electric
CALL SIGN	OXBH
REGISTERED PORT & NUMBER	Hirtshals
(if reg. fishing vessel)	
6. **CREW**

NAME OF MASTER	Jesper Sandager
NUMBER OF CREW	20
7. **SCIENTIFIC PERSONNEL**

NAME AND ADDRESS OF SCIENTIST IN CHARGE	Kai Wieland / Helle Rasmussen DTU Aqua North Sea Science Park Willemoesvej 2 DK-9850 Hirtshals
TEL NO / FAX NO	+45 35 88 33 00 / +45 35 88 33 33
NUMBER OF SCIENTISTS	10
8. **GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE** (with reference in Latitude and Longitude):
51°00'N - 58°00'N, 02°00'W -10°00'E
9. **BRIEF DESCRIPTION OF PURPOSE OF CRUISE:**
IBTS (International Bottom Trawl Survey)
10. **DATES AND NAMES OF INTENDED PORTS OF CALL:**
NONE
11. **ANY SPECIAL REQUIREMENTS AT PORTS OF CALL:**
NONE

B. DETAIL

1. NAME OF RESEARCH SHIP DANA CRUISE NO. 07/2019

2. DATES OF CRUISE FROM 29/7 2019 TO: 19/8 2019

3. PURPOSE OF RESEARCH AND GENERAL OPERATIONAL METHODE

International Bottom Trawl Survey. Bottom Trawling and Pelagic sampling.

4. PLEASE ATTACH CHART showing, at the appropriate scale the geographical area of the intended work, the areas to be fished, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment etc.:

See enclosed map and station list

5a. TYPES OF SAMPLES REQUIRED e.g. Geological/water/plankton/fish. If fishing gear is to be used please indicate what fish stocks will be worked, the maximum quantity required of each species/stock and the quantity of fish to be retained on board:

Fish: Herring, cod, haddock, whiting, sprat, Norway pout, mackerel, fish larvae and water

5b. METHODS BY WHICH SAMPLES WILL BE OBTAINED (e.g. dredging/coring/drilling/fishing etc.)

Fishing

6a. DETAILS OF MOORED EQUIPMENT:

Dates:	<u>Laying</u>	<u>Recovery</u>	<u>Description</u>	<u>Latitude</u>	<u>Longitude</u>
None					

6b. FULL DESCRIPTION FOR ALL FISHING GEAR TO BE USED (e.g. bottom trawl, mesh size, attachments etc.):

GOV Bottom trawl (16 mm)

ISAAC-KIDD MIDWATER TRAWL (MIK) and Bongo net: Pelagic fish larvae (5 mm).

7. ANY HAZARDOUS MATERIALS e.g. chemicals/explosives/gases/radioactives etc)
(use separate sheet if necessary) None

- (a) TYPE OF TRADE NAME
(b) CHEMICAL CONTENT (& FORMULA)
(c) IMO IMDG CODE Reference & UN Number
(d) QUANTITY & METHODS 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. PLEASE SET OUT DETAILS OF:

- (a) ANY RELEVANT PREVIOUS/FUTURE CRUISES:

NS-IBTS 1981 – 2018

- (b) ANY PREVIOUSLY PUBLISHED RESEARCH DATA RELATING TO THE PROPOSED CRUISE: (Attach separate sheet if necessary)

ICES IBTSWG several reports

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

Jim Ellis	Finlay Burns
CEFAS	Marine Scotland Science
Lowestoft Laboratory	Marine Laboratory
Lowestoft	Aberdeen
UK	UK

10. STATE:

- (a) WHETHER VISITS TO THE SHIP IN PORT BY COASTAL STATE SCIENTISTS WILL BE ACCEPTABLE:

YES

- (b) WHETHER IT WILL BE ACCEPTABLE TO CARRY ON BOARD AN OBSERVER FOR ANY PART OF THE CRUISE

YES

- (If 'yes' please indicate possible dates and ports of embarkation/disembarkation)

By Special arrangement

- (c) WHEN RESEARCH DATA FROM THE INTENDED CRUISE IS LIKELY TO BE MADE AVAILABLE TO THE COASTAL STATE AUTHORITIES AND BY WHAT MEANS:

ICES DATRAS September 2019, IBTSWG March 2020

If the report will not be available within 12 months of the cruise, please set out, an explanation for the delay indicating when the report will be available.

12. SCIENTIFIC EQUIPMENT

COASTAL STATE: United Kingdom

PORT CALL: None

DATES: 29/7 – 19/8 2019

**Complete the following table –
separate copy for each coastal state**

Indicate 'yes' or 'no' other than for fishing gear when the total hours of fishing in each zone should be indicated

<u>LIST SCIENTIFIC WORK BY FUNCTION</u>				DISTANCE FROM COAST		
e.g. : Magnetometry Gravity diving Seismics Bathymetry Seabed sampling Trawling Echo sounding Water sampling U/W TV Moored instruments Towed instruments	Water Column	Fisheries Research within fishing limits	Research concerning Continental shelf out of Coastal State's margin	Within 3 NM	Between 3-12 NM	Between 12 and 200 NM
Trawling Water sampling CTD MIK and Bongo Echo sounding	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	No No No No No	No No No No No	No No No No No	Yes Yes Yes Yes Yes

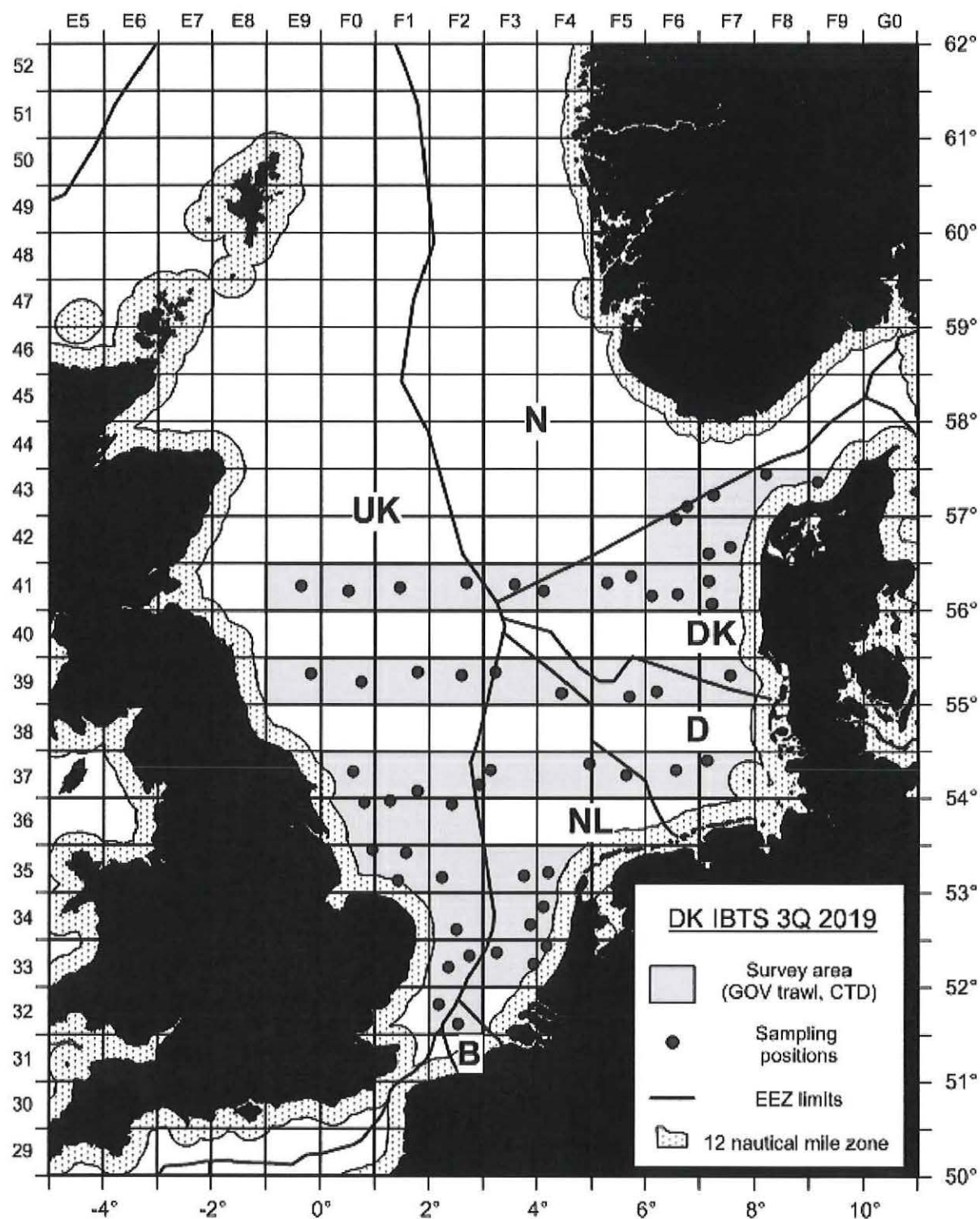
.....Linda Stuhr Christensen.

Dated: 5/1-1

(On behalf of the Principal Scientist)

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.

Survey map



Station list

StatRec	ShootLat	ShootLon	HaulLat	HaulLon	StartLatDegMin			StartLonDegMin			EndLatDegMin			EndLonDegMin		
43F9	57.3613	9.1668	57.3708	9.1099	57 °	21.678	'N	9 °	10.008	'E	57 °	22.248	'N	9 °	6.594	'E
43F8	57.4540	8.2123	57.4735	8.2568	57 °	27.240	'N	8 °	12.738	'E	57 °	28.410	'N	8 °	15.408	'E
43F7	57.2232	7.2526	57.2104	7.2193	57 °	13.392	'N	7 °	15.156	'E	57 °	12.624	'N	7 °	13.158	'E
43F6	57.1007	6.7664	57.0986	6.8264	57 °	6.042	'N	6 °	45.984	'E	57 °	5.916	'N	6 °	49.584	'E
42F7	56.6019	7.1504	56.5727	7.1806	56 °	36.112	'N	7 °	9.025	'E	56 °	34.364	'N	7 °	10.834	'E
42F7	56.6769	7.5619	56.7103	7.5705	56 °	40.615	'N	7 °	33.712	'E	56 °	42.617	'N	7 °	34.227	'E
42F6	56.9631	6.5712	56.9606	6.5089	56 °	57.786	'N	6 °	34.272	'E	56 °	57.636	'N	6 °	30.534	'E
41F7	56.3037	7.1700	56.2996	7.1103	56 °	18.220	'N	7 °	10.200	'E	56 °	17.977	'N	7 °	6.619	'E
41F7	56.0677	7.2191	56.0600	7.1610	56 °	4.060	'N	7 °	13.144	'E	56 °	3.599	'N	7 °	9.658	'E
41F6	56.1827	6.6086	56.1826	6.5493	56 °	10.960	'N	6 °	36.518	'E	56 °	10.957	'N	6 °	32.958	'E
41F6	56.1498	6.1099	56.1408	6.0551	56 °	8.986	'N	6 °	6.595	'E	56 °	8.447	'N	6 °	3.303	'E
41F5	56.3595	5.7351	56.3815	5.7787	56 °	21.568	'N	5 °	44.105	'E	56 °	22.891	'N	5 °	46.722	'E
41F5	56.2885	5.2906	56.2989	5.2310	56 °	17.310	'N	5 °	17.436	'E	56 °	17.934	'N	5 °	13.860	'E
41F4	56.2074	4.1061	56.2276	4.1547	56 °	12.446	'N	4 °	6.367	'E	56 °	13.658	'N	4 °	9.281	'E
41F3	56.2805	3.5888	56.2599	3.6354	56 °	16.827	'N	3 °	35.325	'E	56 °	15.596	'N	3 °	38.124	'E
41F2	56.2861	2.6872	56.2913	2.7452	56 °	17.167	'N	2 °	41.229	'E	56 °	17.476	'N	2 °	44.710	'E
41F1	56.2477	1.4457	56.2509	1.4755	56 °	14.862	'N	1 °	26.742	'E	56 °	15.054	'N	1 °	28.530	'E
41F0	56.2134	0.4907	56.2468	0.5007	56 °	12.804	'N	0 °	29.442	'E	56 °	14.808	'N	0 °	30.042	'E
41E9	56.2563	-0.3513	56.2683	-0.2948	56 °	15.378	'N	0 °	21.078	'W	56 °	16.098	'N	0 °	17.688	'W
39F7	55.3178	7.5637	55.3234	7.5064	55 °	19.065	'N	7 °	33.821	'E	55 °	19.402	'N	7 °	30.382	'E
39F6	55.1395	6.2011	55.1289	6.1463	55 °	8.371	'N	6 °	12.064	'E	55 °	7.735	'N	6 °	8.776	'E
39F5	55.0898	5.6963	55.1024	5.6445	55 °	5.390	'N	5 °	41.776	'E	55 °	6.144	'N	5 °	38.672	'E
39F4	55.1298	4.4523	55.1014	4.4230	55 °	7.785	'N	4 °	27.136	'E	55 °	6.082	'N	4 °	25.378	'E
39F3	55.3552	3.2338	55.3232	3.2172	55 °	21.312	'N	3 °	14.025	'E	55 °	19.390	'N	3 °	13.031	'E
39F2	55.3078	2.5974	55.2793	2.5675	55 °	18.467	'N	2 °	35.846	'E	55 °	16.758	'N	2 °	34.052	'E
39F1	55.3543	1.7920	55.3378	1.7416	55 °	21.255	'N	1 °	47.519	'E	55 °	20.270	'N	1 °	44.497	'E
39F0	55.2441	0.7450	55.2138	0.7211	55 °	14.646	'N	0 °	44.700	'E	55 °	12.828	'N	0 °	43.266	'E
39E9	55.3351	-0.1716	55.3457	-0.1160	55 °	20.106	'N	0 °	10.296	'W	55 °	20.742	'N	0 °	6.960	'W
37F7	54.4094	7.1208	54.3857	7.1609	54 °	24.565	'N	7 °	7.245	'E	54 °	23.140	'N	7 °	9.656	'E
37F6	54.2957	6.5546	54.3058	6.5003	54 °	17.742	'N	6 °	33.275	'E	54 °	18.346	'N	6 °	30.015	'E
37F5	54.2474	5.6472	54.2672	5.6020	54 °	14.841	'N	5 °	38.832	'E	54 °	16.033	'N	5 °	36.117	'E
37F4	54.3668	4.9623	54.3529	4.9107	54 °	22.010	'N	4 °	57.740	'E	54 °	21.175	'N	4 °	54.640	'E
37F3	54.2927	3.1284	54.3078	3.1794	54 °	17.562	'N	3 °	7.704	'E	54 °	18.468	'N	3 °	10.764	'E
37F2	54.1387	2.9157	54.1312	2.9740	54 °	8.320	'N	2 °	54.940	'E	54 °	7.870	'N	2 °	58.440	'E
37F1	54.0783	1.7899	54.0795	1.8464	54 °	4.696	'N	1 °	47.393	'E	54 °	4.771	'N	1 °	50.785	'E
37F0	54.2834	0.5812	54.3016	0.5322	54 °	17.004	'N	0 °	34.872	'E	54 °	18.096	'N	0 °	31.932	'E
36F2	53.9404	2.4054	53.9265	2.4567	53 °	56.426	'N	2 °	24.325	'E	53 °	55.591	'N	2 °	27.399	'E
36F1	53.9673	1.2782	53.9363	1.2977	53 °	58.039	'N	1 °	16.691	'E	53 °	56.178	'N	1 °	17.860	'E
36F0	53.9457	0.8167	53.9458	0.7623	53 °	56.742	'N	0 °	49.002	'E	53 °	56.748	'N	0 °	45.738	'E
35F4	53.2169	4.2207	53.2467	4.1982	53 °	13.011	'N	4 °	13.241	'E	53 °	14.801	'N	4 °	11.892	'E
35F3	53.1801	3.7465	53.1485	3.7646	53 °	10.808	'N	3 °	44.788	'E	53 °	8.907	'N	3 °	45.877	'E
35F2	53.1665	2.2395	53.1902	2.2059	53 °	9.991	'N	2 °	14.372	'E	53 °	11.414	'N	2 °	12.353	'E
35F1	53.1230	1.4420	53.1523	1.7845	53 °	7.380	'N	1 °	26.520	'E	53 °	9.140	'N	1 °	47.070	'E
35F1	53.4159	1.5707	53.4485	1.5834	53 °	24.952	'N	1 °	34.244	'E	53 °	26.908	'N	1 °	35.006	'E
35F0	53.4492	0.9374	53.4742	0.9031	53 °	26.952	'N	0 °	56.244	'E	53 °	28.452	'N	0 °	54.186	'E
34F4	52.8550	4.1172	52.8286	4.0853	52 °	51.298	'N	4 °	7.034	'E	52 °	49.717	'N	4 °	5.118	'E
34F3	52.6706	3.8931	52.6550	3.9414	52 °	40.237	'N	3 °	53.583	'E	52 °	39.297	'N	3 °	56.485	'E
34F2	52.6113	2.5058	52.5959	2.4572	52 °	36.677	'N	2 °	30.346	'E	52 °	35.754	'N	2 °	27.433	'E
33F4	52.4399	4.1765	52.4244	4.1290	52 °	26.394	'N	4 °	10.589	'E	52 °	25.461	'N	4 °	7.742	'E
33F3	52.2501	3.9336	52.2652	3.8851	52 °	15.004	'N	3 °	56.015	'E	52 °	15.914	'N	3 °	53.104	'E
33F3	52.3685	3.2650	52.3357	3.2652	52 °	22.110	'N	3 °	15.900	'E	52 °	20.139	'N	3 °	15.914	'E
33F2	52.3350	2.7437	52.3213	2.6948	52 °	20.100	'N	2 °	44.623	'E	52 °	19.279	'N	2 °	41.687	'E
33F2	52.2222	2.3662	52.2557	2.3595	52 °	13.331	'N	2 °	21.973	'E	52 °	15.342	'N	2 °	21.570	'E
32F2	51.8251	2.1630	51.8571	2.1746	51 °	49.506	'N	2 °	9.780	'E	51 °	51.426	'N	2 °	10.476	'E
32F2	51.6181	2.5394	51.6487	2.5621	51 °	37.086	'N	2 °	32.364	'E	51 °	38.922	'N	2 °	33.726	'E