NOTIFICATION OF PROPOSED RESEARCH CRUISE

Part A: GENERAL

1. **Name of research ship:** RV Pelagia

2. **Cruise dates:** 7 July 2006 to 24 July 2006

3a. **Operating authority:**
Royal Netherlands Institute for Sea Research (NIOZ)
Telephone: (+31) (0)222-369300
Telefax: (+31) (0)222-319674

3b. **Operating agent:**
Netherlands Institute for Sea Research (NIOZ)
Telephone: (+31) (0)222-369300
Telefax: (+31) (0)222-319674

4. **Owner:** Royal Netherlands Institute for Sea Research (NIOZ)

5. **Particulars of ship:**

name:	Pelagia
nationality:	Dutch
overall length:	66.00 meters
maximum draught:	4.00 meters
nett tonnage:	1553 NRT
propulsion:	2 diesel electric Elliot White Gill Bow Truster
call sign:	PGRQ

6. **Crew:**

name of master:	J. Ellen
number of crew:	10

7. **Chief scientist:**

name:	Cornelia Maier
addresses:	Royal Netherlands Institute for Sea Research P.O. Box 59 1790 AB Den Burg
telephone:	(+31) (0)222-369 530
telefax:	(+31) (0)222-319 674
e-mail address:	maier@nioz.nl

8. Geographical area in which the ship will operate: (with reference in latitude and longitude)

Mingulay Reef, Hebrides, 55°30'N to 58°30'N, 9°00'W to 6°00'W

9. Brief description of purpose of cruise:

Investigation of cold water coral reefs of the Mingulay area. Special interest on habitat mapping (video transects), physical and chemical properties of seawater surrounding cold water corals, biological productivity of cold water corals and community. This research forms part of the international HERMES project funded by the European Community and by a national project (BIOSYS) funded by the dutch science foundation.

10. Names and dates of intended ports of call:

Oban (7th July and 24th July 2006)

11. Any special logistic requirements at ports of call:

NO

Part B: DETAIL

1. **Name of research ship:** RV Pelagia

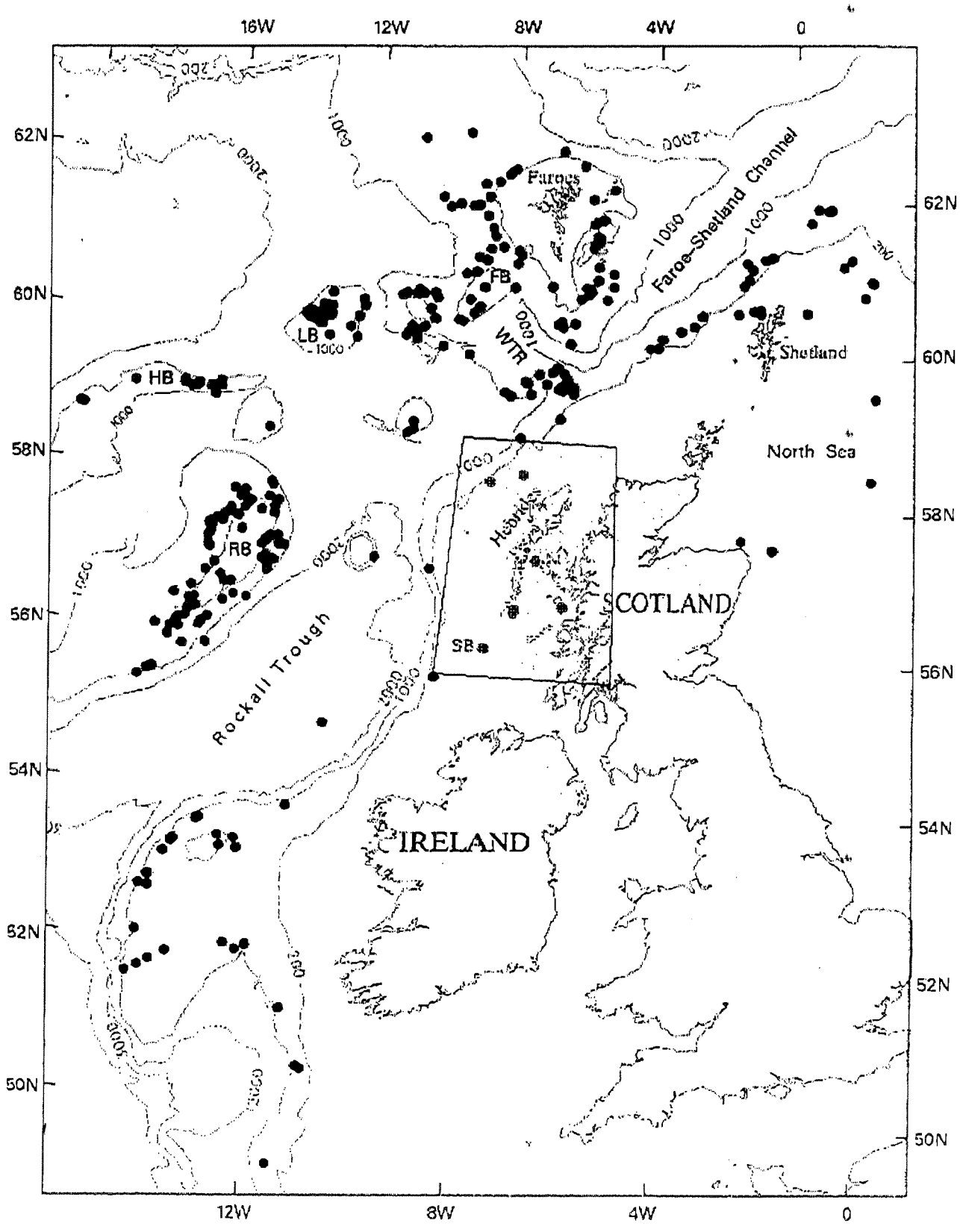
2. **Cruise dates:** 7 July to 24 July

3. **Purpose of research and general operational methods:**

Biological research on the cold-water coral community. One of the objective of the European-funded HERMES is a comparative study on functioning of biodiversity hotspots along the European continental margin. Cold coral ecosystems form one of the target habitats of HERMES. The objective of the nationally funded BIOSYS is on ecosystem functions and trophodynamics and physiological functioning of the cold water coral organisms and some sponges.
The general objectives of the projects are as following:
1. To determine in more detail than previously attempted the species and biodiversity of ranging from microbes to corals.
2. To assess the role of prokaryotes for the nutrition of *Lophelia/Madrepora* corals using stable isotopes and in controlled feeding experiments with corals maintained in aquaria.
3. To assess coral growth *in situ* and in controlled laboratory experiments.
4. To measure and identify system functions in DWCRs and link biodiversity with functional aspects of the system.

Data will be collected by deploying bottom landers and CTD. Benthic organisms and ambient seawater for biological sampling are taken by boxcorer, dredge, rosette-sampler, waterbox and waterpumps.

4. **Attach chart showing (on an appropriate scale) the geographical area of the intended work, positions of intended stations/hydrographic sections:**



5a. Type of samples required:

Water samples, bottom fauna samples

5b. Methods by which samples will be obtained (including dredge/core/drill techniques):

Rosette-sampler, waterbox and waterpump for water samples, boxcore and dredge for bottomfauna (benthos) samples

6. Details of moored equipment:

Up to 3 benthic landers (about 3 m high) will be deployed between 100-1500 m depth at the seabottom. These landers will record currents, particles in the water, pigments, particle flux and temperature. Besides it will have a settlement experiment monitored by video camera's. Intension is to use the landers for short (few days) as well as long deployments.

7. Explosives:

No explosives.

8. Detail and reference of:

a. Any relevant previous/future cruises:

There were several cruises to the NE Atlantic (Rockal Bank and Porcupine Seabight) by members of the research team (Moundforce 2004, HERMES/BIOSYS 2005) using the same equipment and with the RV Pelagia to study cold water coral reefs.

b. Any previous published research data relating to the proposed cruise: (Attach separate sheet if necessary)

Duyl, FC, Duineveld, GCA and scientific party, 2005. Biodiversity, ecosystem functioning and food web complexity of deep water coral reefs in the NE Atlantic (Rockall Bank and Porcupine Bank). BIOSYS-HERMES 2005 Cruise Report, NIOZ, Texel. 31 pp, Appendix I-VII.

9. Names and addresses of scientists of the coastal state in whose waters the proposed cruise takes place with whom previous contact has been made:

M. Roberts, Dunstaffage Marine Laboratory, Scottish Association for Marine Science, Oban, Scotland

10. State:

a. Whether visits to the ship in port by scientist of the coastal state concerned will be acceptable:

Yes

b. Whether it will be acceptable to carry on board an observer from the coastal state for any part of the cruise and dates and ports of embarkation/-disembarkation:

Yes.

c. When research data from intended cruise is likely to be made available to the coastal state and if so, by what means:

The data will be made available through a scientific publication.

UNITED KINGDOM:

SCIENTIFIC EQUIPMENT

11. Complete the following table - include a separate copy for each coastal state, (indicate "Yes" or "No" if applicable)

Marine scientific equipment used	water depth (m)	fisheries research	distance of research to coast in nautical miles			
			< 3	3-12	12-50	50-200
Rosette sampler	0-400	no	no	yes	yes	yes
Waterbox	0-400	no	no	yes	yes	yes
Waterpump	0-400	no	no	yes	yes	yes
Boxcorer	100-400	no	no	yes	yes	yes
Dredge	100-400	no	no	yes	yes	yes
Bottom-lander	100-400	no	no	yes	yes	yes

List of intended sampling stations during Pelagia cruise

The position of stations will be discussed during the annual meeting of the HERMES project in April 2006 with partners of HERMES.

References

none