

NOTIFICATION OF PROPOSED RESEARCH CRUISE**Part A: GENERAL**

1. Name of research ship: RV Pelagia Cruise number: 64PE357

2. Cruise dates: 23-29 July 2012

3.

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

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

4. Owner: NIOZ Royal Netherlands Institute for Sea Research

5. Particulars of ship:

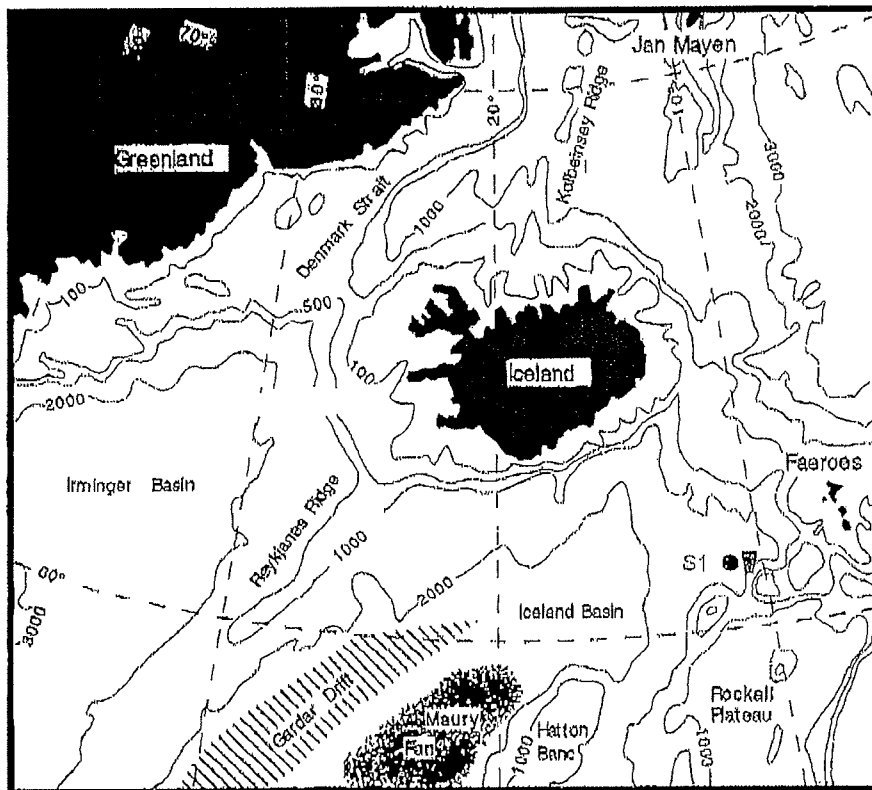
name: Pelagia
nationality: Dutch
overall length: 66.00 meters
maximum draught: 4.00 meters
nett tonnage: 1553 NRT
propulsion: 2 diesel electric Elliot White Gill
Bow Truster
call sign: PGRQ

6. Crew: name of master: P. Kuijt
number of crew: 11

7. Chief scientist: name: Sebastiaan Rampen
addresses: Royal NIOZ
P.O. Box 59
1790 AB Den Burg
The Netherlands
telephone: (+31) (0)222 369525
telefax: (+31) (0)222 319674
e-mail address: marianne.baas@nioz.nl

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

The ship will operate in the waters south of Iceland, within the Icelandic EEZ. The mooring station is located at 61 ° 59.949 'N 16 ° 0.533 'W.



Map with mooring station (S1) containing two sediment traps.

9. Brief description of purpose of cruise:

The cruise is part of a research project called *Sedimentary long-chain, mid-chain diols derived from marine phytoplankton: novel proxies for climate reconstruction*. The project is funded by the Netherlands Organisation for Scientific research (NWO). The aim of this project is to investigate the long-chain diols (natural organic compounds) in marine sediments. These diols can be used to reconstruct past climate changes since the composition of these compounds is known to be influenced by climatic processes. However not much is known about the origin, the diagenesis of these compounds over time, and how their distribution is influenced by temperature, nutrients, etc. During the proposed cruise a previously deployed mooring containing two sediment traps will be recovered. During transect, several water samples will be taken. The obtained samples will be used to determine the factors influencing alterations in the diols and thus to be able to better use these compounds for paleoclimatic reconstructions.

10. Names and dates of intended ports of call:

Departure: Reykjavik (Iceland), 23 July 2011.
Arrival: Reykjavik (Iceland), 29 July 2011.

11. Any special logistic requirements at ports of call:

None

Part B: DETAIL

1. Name of research ship: RV Pelagia

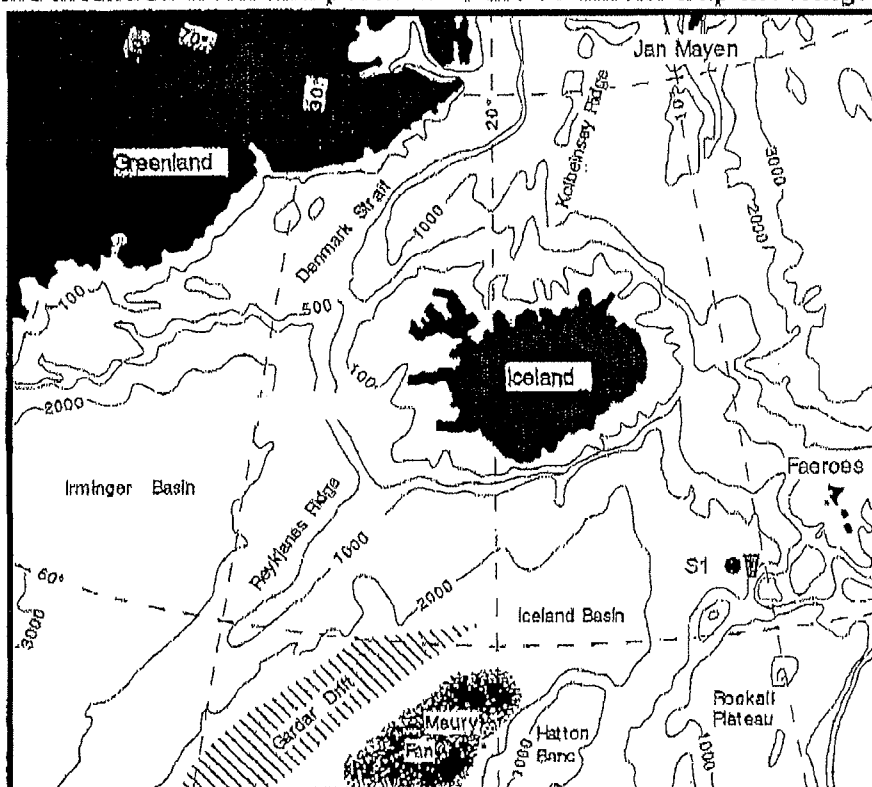
2. Cruise dates: 23 - 29 July 2012

3. Purpose of research and general operational methods:

The purpose of the research is to investigate the source and diagenetic alterations of naturally occurring organic compounds called long-chain diols. These compounds known to change composition during changes in climate and can possibly be used for paleoclimatic reconstructions. However the exact source(s) and changes resulting from changes in temperature, nutrient availability, etc. and burial history of these diols are not well known. The aim of the research project is to gain insight into these sources and diagenetic processes with the final goal to develop a tool that uses these compounds as an indicator for climatic changes in the past.

During this cruise an sediment trap mooring that has been deployed on position S1 will be recovered. Furthermore, if possible, in-situ pumps will be deployed at 2 or 3 stations to sample sea water.

4. Attach chart showing (on an appropriate scale) the geographical area of the intended work and position of the sediment trap mooring:



Map with station S1 where a mooring containing two sediment traps will be recovered.

5

5a. Type of samples required:

Water samples

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

In-situ water pump

Mooring containing 2 sediment traps

6. Details of moored equipment:

The mooring has been deployed for a period of 1 year at location 61 ° 59.949 'N 16 ° 0.533 'W and contains two sediment traps (at 500 and 1500 metres below the surface respectively).

7. Explosives:

None

8. Detail and reference of:

a. Any relevant previous/future cruises:

None.

b. Any previous published research data relating to the proposed cruise:

(Attach separate sheet if necessary)

Sinninghe Damsté, J.S., Rampen, S., Rijpstra, W.I.C., Abbas, B., Muyzer, G., Schouten, S., 2003. A diatomaceous origin for long-chain diols and mid-chain hydroxy methyl alkanoates widely occurring in Quaternary marine sediments: Indicators for high nutrient conditions. *Geochimica et Cosmochimica Acta* 67, 1339-1348.

Rampen, S.W., Schouten, S., Konig, E., Brummer, G.-J.A., Sinninghe Damsté, J.S., 2008. A 90 kyr upwelling record from the northwestern Indian Ocean using a novel long-chain diol index. *Earth and Planetary Science Letters* 276, 207-213.

Rampen, S.W., Schouten, S., Schefuß, E., Sinninghe Damsté, J.S., 2009. Impact of temperature on long chain diol and mid-chain hydroxy methyl alkanoate composition in *Proboscia* diatoms: Results from culture and field studies. *Organic Geochemistry* 40, 1124-1131.

Willmott, V., Rampen, S.W., Domack, E., Canals, M., Sinninghe Damsté, J.S., Schouten, S., 2010. Holocene changes in *Proboscia* diatom productivity in shelf waters of the north-western Antarctic Peninsula. *Antarctic Science* 22, 3-10.

Rampen, S.W., Willmott, V., Kim, J.-H., Uliana, E., Mollenhauer, G., Schefuß, E., Sinninghe Damsté, J.S., Schouten, S., 2012. Long chain 1,13- and 1,15-diols as a potential proxy for palaeotemperature reconstruction. *Geochimica et Cosmochimica Acta* 84, 204-216.

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:

None.

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:

Shortly after the cruise in a cruise report

COASTAL STATE: Iceland

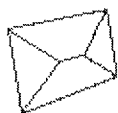
SCIENTIFIC EQUIPMENT

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			
				3-12	12-50	50-200
In-situ pump	500-2200	No	No	No	yes	yes
Sediment trap (mooring)	2000	No	No	No	no	yes

List of intended sampling stations during Pelagia cruise

See figure at Part B.4 for mooring station 1, at 61 ° 59.949 'N 16 ° 0.533 'W. Exact locations for water sampling will be determined based on time available and weather conditions.



URGENT Questions regarding RV Pelagia's trip to Iceland

Málsnúmer: UTN12060124

Númer skjals: UTN_CASE0001

Sent: 22.06.2012 10:38:13

Sent af: Anna Sigríður Alfreðsdóttir

Eigandi skjals: Anna Sigríður Alfreðsdóttir

Almennt	Bréfalyklar:	34.R.001 Vísindarannsóknir, almennt
Til: nico-van.beelen@minbuza.nl		
Afrit: osl@minbuza.nl		
Falið afrit:		
Efni: URGENT Questions regarding RV Pelagia's trip to Iceland		

Texti:

Embassy of the Kingdom of the Netherlands
Nico van Beelen

Hello again,

I have received your fax and I have 2 questions:

In Part A: General - no. 10 it says:

Departure: Reykjavík (Iceland), 23 July 2011

Arrival: Reykjavík (Iceland), 29 July 2011

Is the ship expected to make a port call in Reykjavík and then 23 July 2012 - 29 July 2012 ?
Is the ship entering the Icelandic zone tomorrow 23 June (but not July as stated in the Notification), in fact - as you said on the phone ?

Kindly explain further, I am a bit confused.

Regards,

Anna Sigríður Alfreðsdóttir
Alþjóða- og öryggissvið / Directorate for International and Security Affairs
Utanríkisráðuneytið / Ministry for Foreign Affairs
Rauðarárstígur 25, 150 Reykjavík - Iceland
sími / tel: +354-545-9949 / 9900
fax: +354-562-2373
netfang /e-mail: annasigga@mfa.is



RE: URGENT Questions regarding RV Pelagia's trip to Iceland
Málsnúmer: UTN12060124
Númer skjals: #41082#
Búið til: 22.06.2012
Eigandi skjals: Anna Sigríður Alfreðsdóttir

t-póstur		Bréfalyklar:	34.R.001 Vísindarannsóknir, almennt
Efni:	RE: URGENT Questions regarding RV Pelagia's trip to Iceland	Tilkynningar:	
Efnisflokkur skjals:			
Dagsetning skjals:	22.06.2012		
Sendandi			
	Netfang: OSL <osl@minbuza.nl>		

Texti:

Frá: OSL <osl@minbuza.nl>
Dags: 22.06.2012 11:22:22
Til: "anna.s.alfredsdottir@utn.stjr.is" <anna.s.alfredsdottir@utn.stjr.is>
Afrit: "Beelen, Nico-van" <nico-van.beelen@minbuza.nl>
Efni: RE: URGENT Questions regarding RV Pelagia's trip to Iceland

Dear Mrs Alfreðsdóttir,

Thank you for your email. The request is indeed for July. The ship is expected to make a port call on 23 July and again on 29 July.

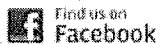
Kind regards,

Astrid C.M. Jansen
Secretary to the Ambassador

.....
Netherlands Embassy

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0244 | Oslo

.....
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<http://norway.nlembassy.org/>



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From: anna.s.alfredsdottir@utn.stjr.is [mailto:anna.s.alfredsdottir@utn.stjr.is]