

## **Logistics Planning Outline for the 2010/2011 NBP/ODEN 2-boat Operation**

***In an attempt to coordinate the science between the ODEN and the NBP for next year's 2-boat operation, the information below will be compiled and passed out during the planning meeting in November.***

<b>Principal Investigator:</b> Tero Harkonen
<b>Project leader onboard NBP/ODEN (if other than P.I.):</b> <b>Karin Harding (Co PI)</b>
<b>Project title:</b> <b>Dynamics and evolution of epidemic diseases in Antarctic and Arctic seals</b>
<b>Participants onboard (tentative):</b> Total: 2 persons Name and function: Olle Karlsson Seal scientist Jonas Teilmann Seal scientist

Please give a brief cruise synopsis. Include the following: research objectives and proposed cruise track.

Collection of blood and tissue samples from crabeater, weddell, leopard, and ross seals for analyses of epidemiological diseases and current health status. Seals are sampled opportunistically along the cruise track as during earlier expeditions.
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Briefly describe sampling methods and major systems and equipment (collection method (i.e standard CTD, plankton nets, MOCness Nets, etc...))

Seals are caught on the ice when ship is moored at sampling stations. Zodiaks are used if access to open water or leads.
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Sampling methods and sites when ship in motion

Site/area/transect	Type of sampling to be performed, volume of H <sub>2</sub> O collected
All along the track	Quantification of marine mammals along the track (Line transect)

Sampling methods and sites from stationary ship

Sampling site	Type of sampling, weight/volume of samples and equipment, etc.	Time per station
Not applicable		

Sampling method and sites away from the ship, on ice

Sampling site	No. of persons	Type of sampling, weight/volume of samples and equipment, etc.	Time per station
All stops	3	Tissue and blood sampling	Depends on numbers of seals

Deployment/retrieval of equipment

Site	Type of equipment, weight/ volume, procedure, etc.	Time per station
Not applicable		

Which are the most prioritized sampling areas/methods?

Site/area	Method/type of sample	Other info
Amundsen Sea, Ross Sea, McMurdo Sound	Seal catching and sampling	

The following equipment needs to be installed onboard  
(describe in detail, also needed connections to electricity, water, gas etc):

Not applicable

Lab space	Wet lab	Dry lab	Other / specify
Meters of bench space		4	
Power needs (VA) 220/380 V		220V	
Cold water (yes/no)		Y	
Hot water (yes/no)		N	
Sewage (yes/no)		Y	
Compressed air (yes/no)		N	
Gas (yes/no)		N	
Fume hood (yes/no)		N	
Sea water intake (yes/no)		N	
Other (specify)		N	

Special lab areas needed:

Clean air room	N
Other (specify)	

Storage of equipment and samples:

	Space needed (m <sup>2</sup> /m <sup>3</sup> )
Container	
Cold +2°C	
Freezer -20°C	
Other (specify)	Freezer -80 (0.2m <sup>3</sup> )

The following chemicals, gases or other hazardous substances will be used, including radioisotopes or other substances which may constitute a threat of contamination for sensitive analyses:

Substance	Weight/vol.	To be used for:
Ethanol	5 litres	Cleaning equipment
RNA later	1 kg	Preserving virological samples

Hazardous waste:

Substance	Weight/vol.	Comments

Disturbance to or sampling of organisms:

1. Species (scientific and English name)	Crabeater seal, Weddell seal, leopard seal, Ross seal
2. Handling/sampling method	Live capture, blood (syringe) tissue (biopsy needle)
3. Storage or handling onboard	Samples to be taken in the field. Samples processed and frozen at -80.
4. Possible risks to health or environment	No risks
5. Consideration required from the ship/other researchers	NO

Cargo to be taken onboard the ship:

Type, handling/storage	Weight (kg)	Volume (m3)
Sampling equipment	150	1.5

Cargo and samples to be taken off the ship:

Type, handling/storage	Weight (kg)	Volume (m3)
Sampling equipment	150	1.5
Collected samples	10	0.2

Other support needed onboard Oden, or in preparation phase:

Two zodiaks