

Scientific Aspects of Ballast Water Sampling

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- Sampling purpose
- Vessel selection
- Sampling access points and sampling gear
- Sample representativeness
- What to do next?
- Summary

Sampling Purpose

- Academic interest
- Awareness raising
- Risk assessment
- Compliance control with ballast water management requirements



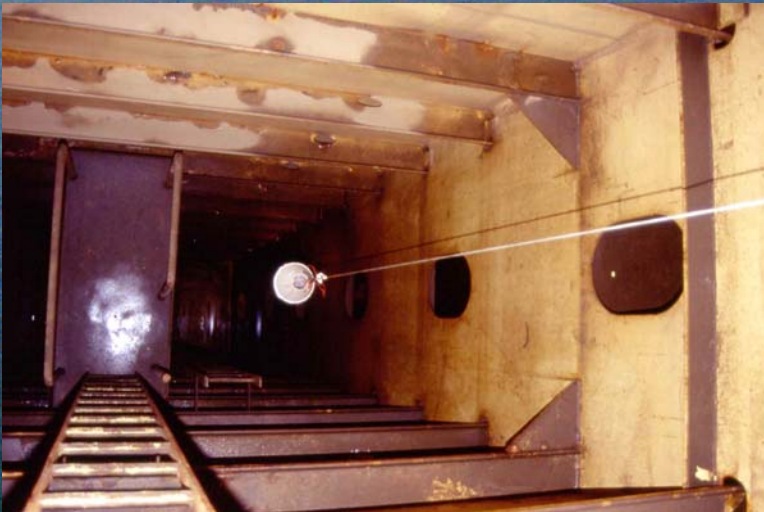
Vessel Selection

- All vessels vs. selective approach
- Focus on vessels carrying ballast water which originates from outside the Black Sea?
- Development of target species list



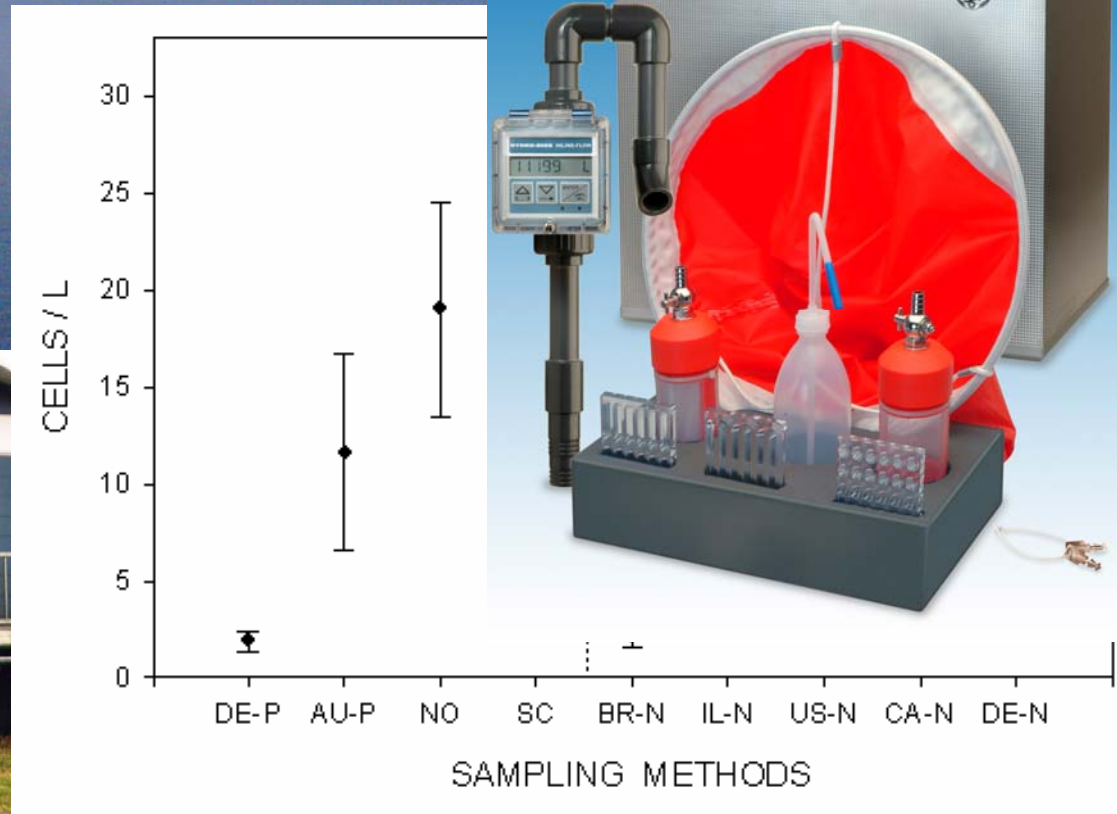
Sampling Access Points and Sampling Gear

- Sounding pipes
- Manholes
- Ship's ballast water pipe
- Cargo holds



Sample Representativeness

- Sampling access point(s)
- Avoid under- and oversampling
- Sample volume
- Selection of sampling gear



What to do next?

- Regional cooperation
 - avoid duplication of efforts
- Center of excellence
- Agree on regional sampling standards
- Development of joint Black Sea sampling guidelines
- Contribute to development of IMO Ballast Water Sampling Guideline
- What to do if vessel contains critical species?



Summary

- Regional cooperation is key
- Avoid duplication of effort
- Consult the GloBallast Ballast Water Sampling Workshop Report
- Consider results from earlier European sampling studies

Table 1. Number of ships sampled, number of samples and duration of shipping studies carried out in European countries.

Shipping study	Number of ships sampled	Number of samples taken		Duration of study	Type of sampling
		Ballast water	Tank sediment		
Belgium	5	26	6	1995-1998	in ports en-route
Denmark	1	8		2000-2003	en-route
England	20	49		1998 – 2000	in ports
England & Wales	112	114	102	1996 – 1999	in ports
France	0	0	0	2000-2004	in ports
Germany 1	189	131	71	1992 – 1996	in ports
Germany 2	9	1	12	1998 – 1999	in ports
Lithuania	11	22		1999 – 2000	in ports
Netherlands	17	21	2	1999-2003	in ports
Norway 1	45			1996 – 1997	in ports
Norway 2	6	8	4	1998 – 1999	in ports
Scotland	127	134	92	1994-1997	in ports
Slovenia	15	45	45	2003	in ports
Sweden	3			1996	in ports
EUCA	5	705		1998 – 1999	en-route
Total	565	1264	334		

Thank you very much for your attention!



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