

Risks of offshore drilling in the Arctic



“Vulnerable Arctic” hearing

European Parliament

1st February 2012 /

Who we are



MARINE-FOCUSED: Oceana is 100% dedicated to restoring and protecting abundant oceans.

GLOBALY-LOCATED: Campaign teams are located in North America (Washington, New York, Alaska, California...) Europe (Madrid, Copenhagen, Brussels) ; South America (Chile) and Central America (Belize).

CAMPAIGN-DRIVEN: Our resources support a small number of strategically-chosen campaigns that achieve specific policy outcomes and help protect the marine environment.

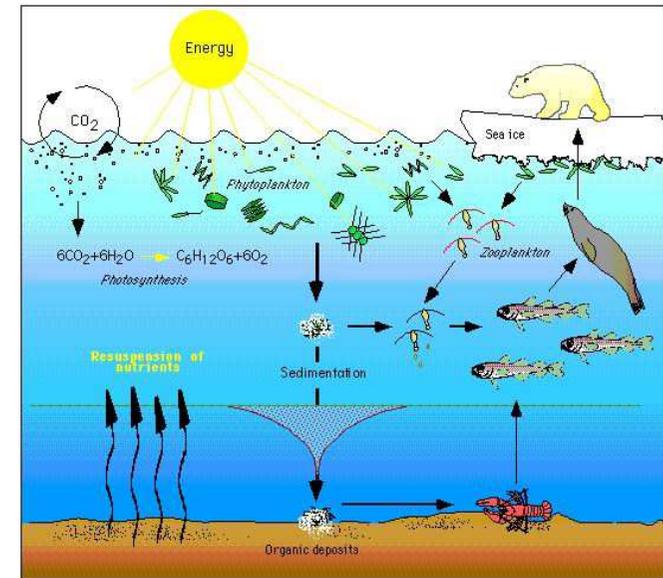
☐ **Habitats Protection** ☐ **Responsible Fishing** ☐ **Climate and Energy**

SCIENCE-BASED: Science is essential to identifying problems and finding solutions that matter, which is why Oceana's campaigners work closely with marine biologists and other ocean scientists.

Ecological role (1)

1. Arctic biodiversity

- **Sea ice:** a refuge for life
- Microorganisms, fish and the Arctic food web
- Among most productive world's ocean
- **Marine mammals:** seals, whales, walruses, beluga, narwhals, porpoises, sharks, polar bears...
- **Birds** – ½ of the world's shore birds species
- Uniqueness, naturalness and richness



Drawn by Christopher Krebs

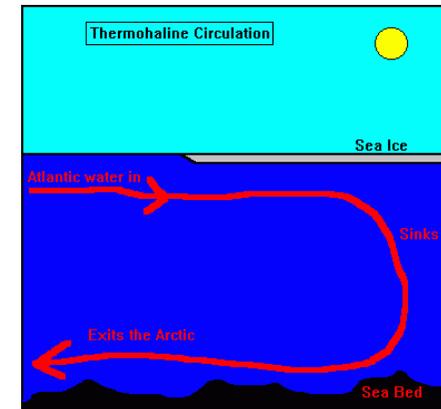
- > Essential habitats for migration, reproduction and feeding grounds
- > Endangered species facing unprecedented changes/ population decline



Ecological role (2)

2. Ocean circulation and climate regulation

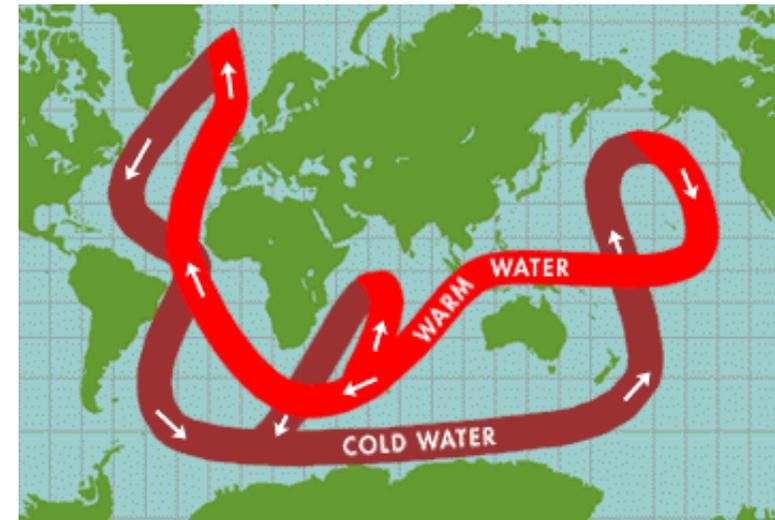
- Complex circulation system
- Central role in the global oceanic balance



3. Carbon cycle

- Albedo reflection
- Carbon sink but for how long ?
The Arctic now traps 25% of world's Carbon, but that could change

4. Yet little understanding of its complexity



> Climate change is fundamentally altering those processes in ways that are unknown and unpredictable

Pressures and threats

Too much, too fast, too soon

- Increased pressures from **industrialization**
- **Offshore oil & gas** generates extra-stress and disturbance on marine life and communities:
 - **underwater noise and vibrations**
 - **pollutions and wastes**
- Arctic conditions affects both the probability and the consequences of an **oil spill**:
 - **Higher complexity of oil spill**
 - **Hostile environmental conditions**

> Increase probability of spill !

> uncertainties and ecological realities must be factored into specific risk assessments



Preparedness & response



Challenging conditions affects the consequences and contingency plans

- Response systems have different capabilities and limitations to consider
- Little real data available on effectiveness
- No suitable blowout prevention technologies
- Ineffective spill recovery and clean up methods

> All require critical infrastructures, logistical support and planning



The Arctic “response gap”



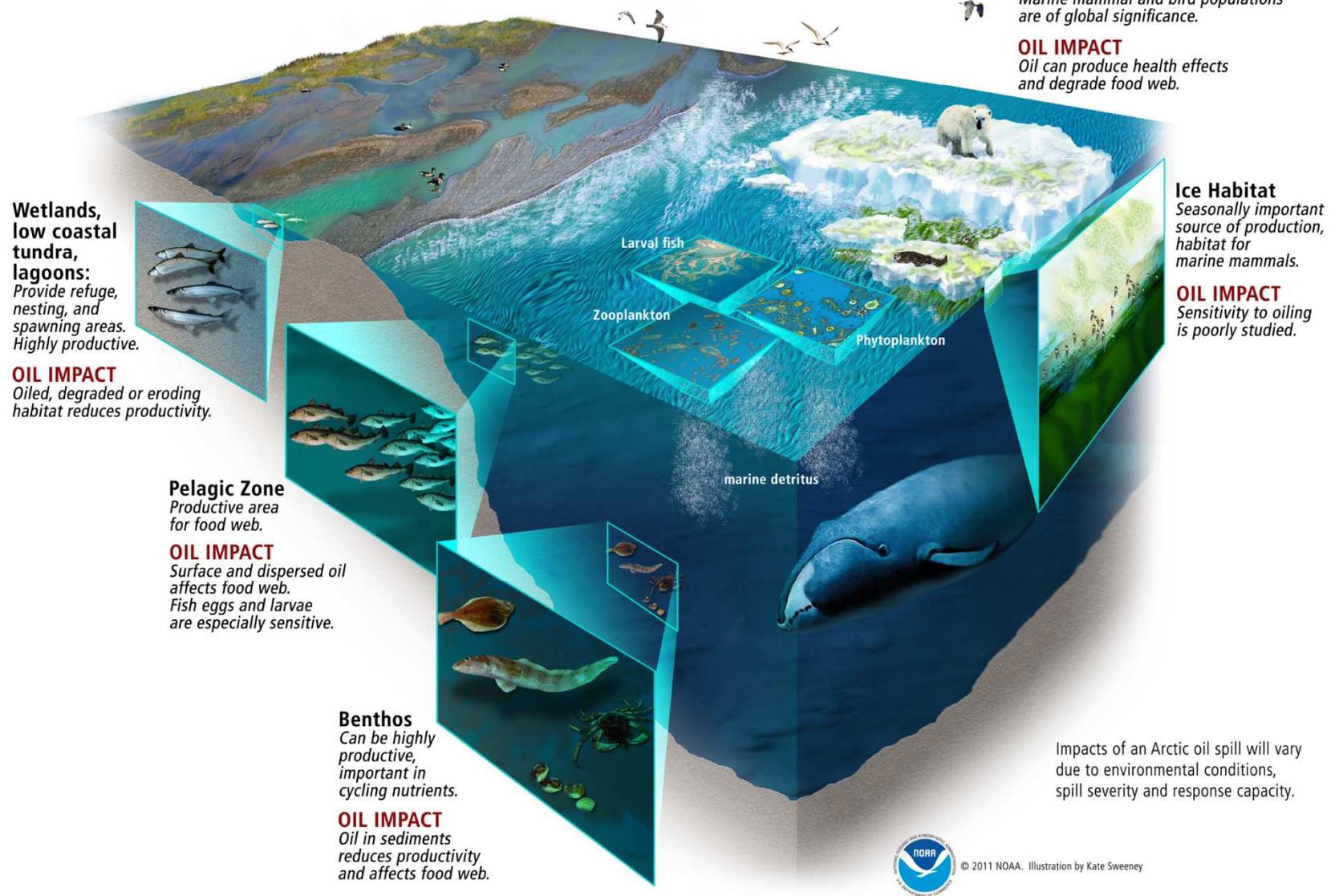
“ When activities that may cause a spill are conducted during a time when an effective response cannot be achieved, either because of technological availability or deployment is prevented by environmental conditions or safety issues”

- Arctic response gap must be acknowledged and quantified
- Systematic gap-analysis to:
 - assess maximum operating limits
 - determine effectiveness of a spill response
 - allow for corrective actions (e.g. restrictions)

Regions	US Gulf of Alaska (Prince William sound)	Canadian North (Beaufort Sea) <i>(Jul – Oct)</i>	US North Alaska (Chukchi Sea)	West Greenland (David Strait) <i>(Aug – Nov)</i>
Ex. estimated response gap	40% in summer * 65% in winter*	20 - 65% summer 100% in winter	60-80% in winter	35 - 85% summer 100% in winter

Case of an Arctic oil spill

Conceptual Model of Arctic Oil Spill Exposure and Injuries



Recommendations

As goes the Arctic, so goes the Planet

- **Realist limits imposed on oil spill response must be factored into development strategies**
- **Suspend offshore drilling in the Arctic, until gaps are closed**
- **Different approaches to take account of vulnerable ecosystems**
- **EU to act as an international leader and create pressure for changes**
- **Cut fossil-fuel addiction by stimulating clean energy investments**



What happens in the Arctic affects all of us

Thank you



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