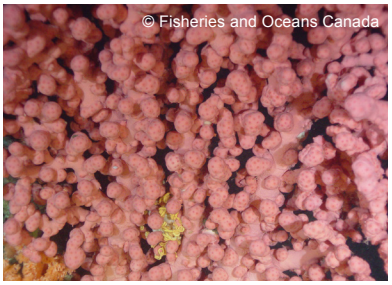
WWF CANADA

SHIPPING FACT SHEET

SENSITIVE BENTHIC HABITATS

What are sensitive benthic habitats and why are they important?

Sensitive benthic habitats are areas on the seafloor that form essential components of marine ecosystems. They provide protection, habitat, and food for marine species that are culturally, socially, and economically important to Canadians.



For more information, contact:

Kimberley Dunn, Senior Specialist, Marine Conservation

kdunn@wwfcanada.org

Deep-sea hydrothermal vents and glass sponge reefs, such as those found in Canada's Pacific Ocean, are good illustrations of the unique nature of sensitive benthic habitats. Hydrothermal vents release metals and sulfides from the seabed, as well as water that can reach temperatures of up to 500°C – only organisms that have adapted to these harsh environments can live there. Some glass sponge reefs are ancient, growing for thousands of years and are recognized as globally unique ecosystems. Other sensitive benthic habitats include cold-water coral reefs, algae beds, kelp beds, and eelgrass beds.

How does shipping impact sensitive benthic habitats?

- **Ship anchors may cause physical damage** that results in years of recovery and the reduction of habitat complexity. The impacts of physical damage on some cold-water coral and sponge species can take decades or even centuries to recover.
- **Ship anchors may re-suspend sediment** and organic matter in the water, which can smother marine animals and reduce the amount of light that plants need to grow and obtain food. Smothering of glass sponges by sediment can cause clogging of sponge feeding tissues and arrest pumping and filtration — functions important to carbon and nutrient cycling processes in the ocean..
- **Wrecked ships**, or ships that contact the ocean floor, can crush and/or displace marine plants and animals. This could leave room for invasive and opportunistic species to take over the area.
- **Oil spills and operational leaks** can be toxic or suffocate marine plants and animals.
- **Black and grey water discharge** can lead to algal blooms, contamination of shellfish, and can make species like corals less resilient.

How does Canada protect sensitive benthic habitats?

Fisheries and Oceans Canada can designate Sensitive Benthic Areas (SBAs) and Marine Protected Areas (MPAs) to protect sensitive benthic habitats. SBAs typically limit bottom-contact fishing (not shipping) near sensitive benthic habitats, while MPAs can include no-anchoring zones to reduce the impacts of ship anchoring.

What needs to be done?

- **Prohibit the use of anchors** in sensitive benthic habitats by all vessels
- **Implement best practices** for oily water separation and management
- **Establish and enforce zero discharge** for all marine protected areas, and strongly consider this measure for other sensitive benthic habitats
- **Support further research** into the interactions between shipping and sensitive benthic habitats, including additional management measures

Why address this now?

Canada recognizes the ecological and cultural importance of sensitive benthic habitats, but has focused much of its attention on mitigating impacts from fishing activity. Shipping impacts are another prevalent source of stress to these habitats. They must not only be better understood, but also adequately managed to ensure the health of these areas and the many species they support.