



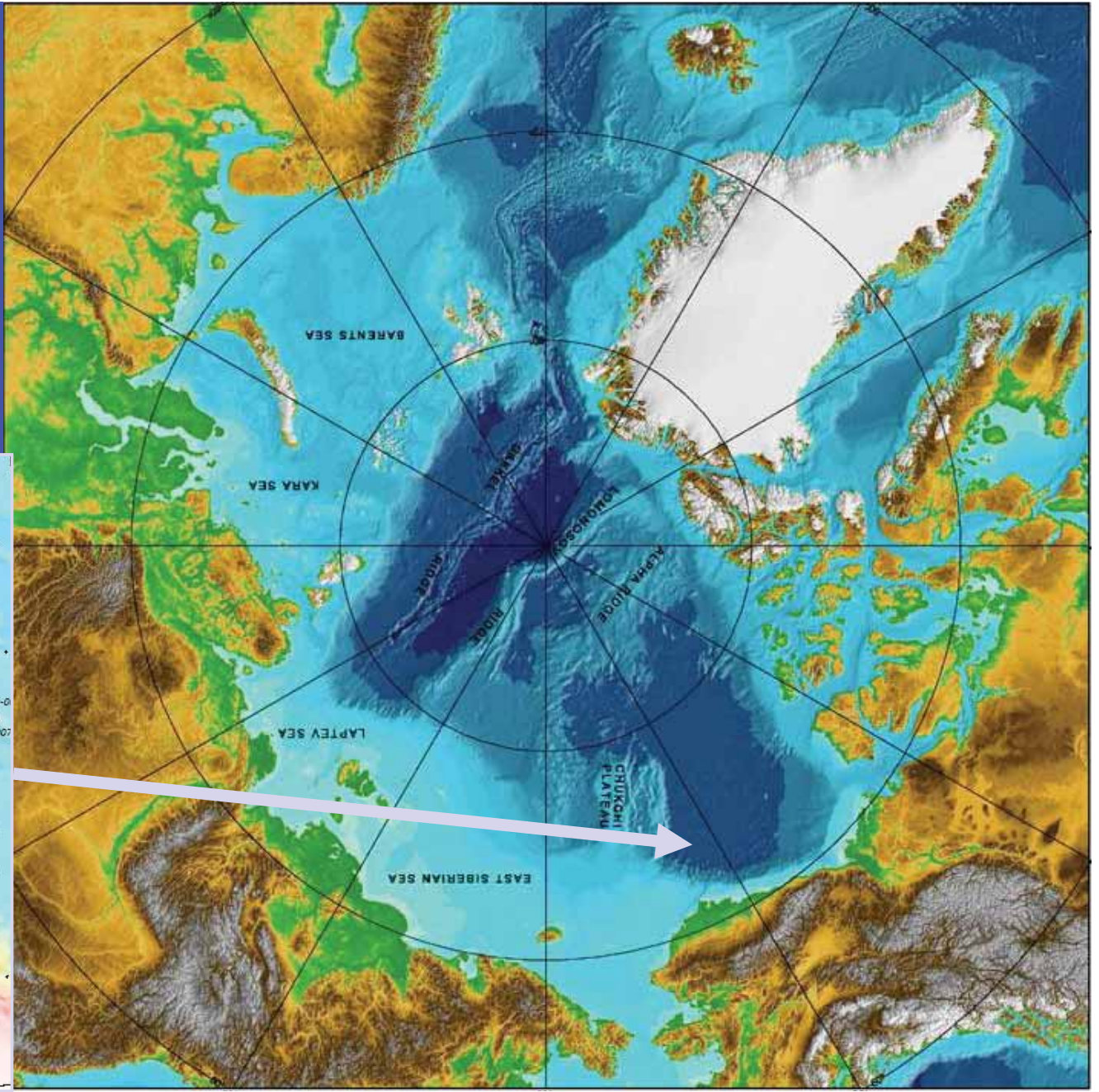
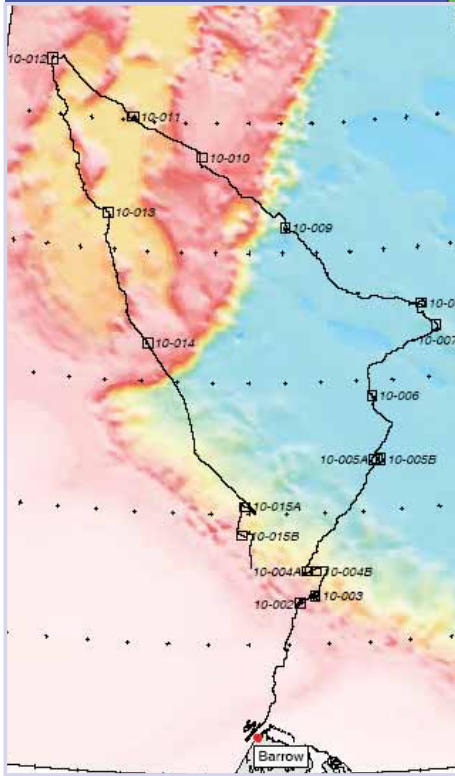
**Living in the freezer**

**UAF exploration of the Arctic  
Seas**

**Rolf Gradinger, SFOS**

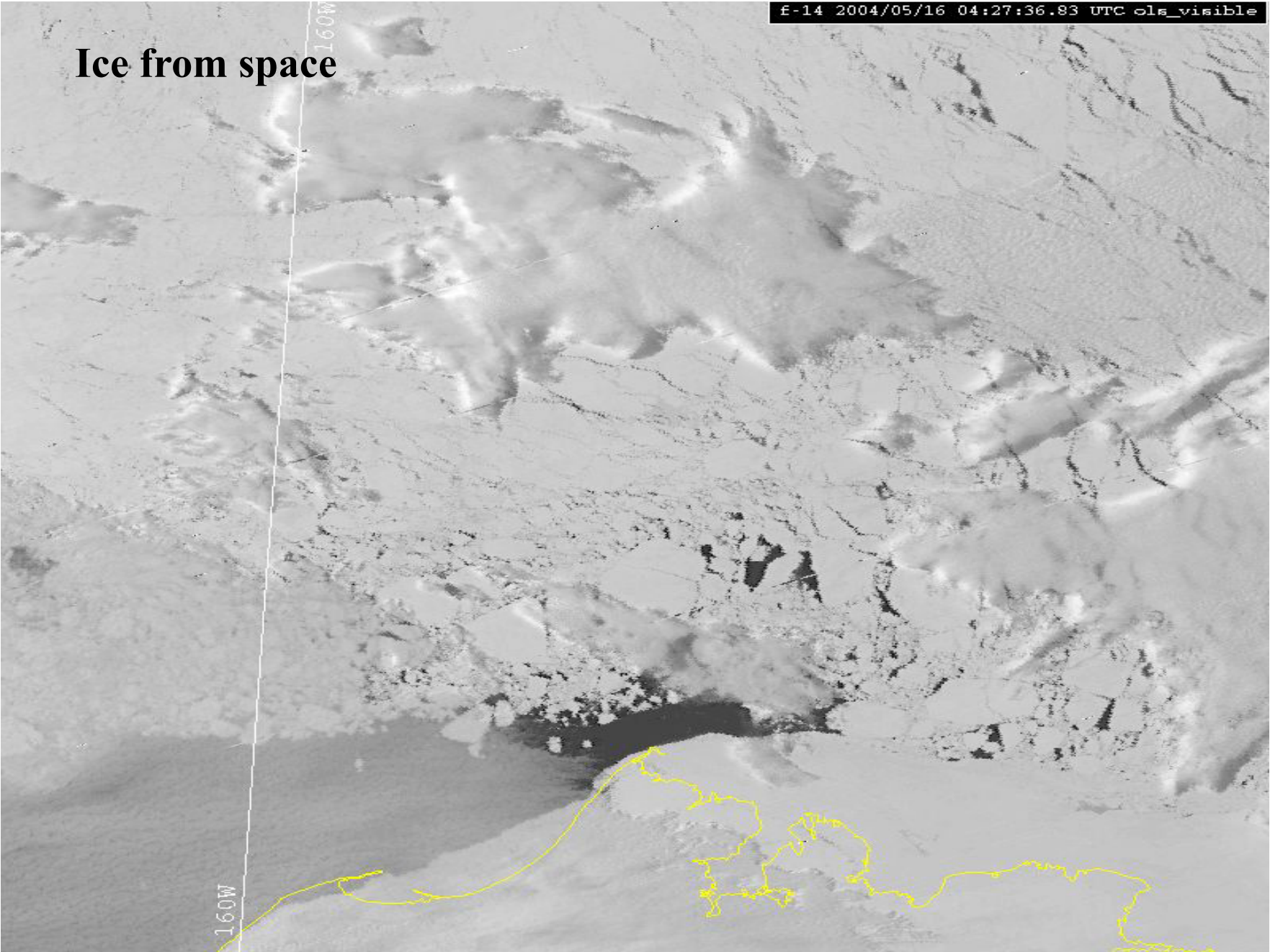


# Ocean Exploration 2005



f-14 2004/05/16 04:27:36.93 UTC ols\_visible

# Ice from space



## Regional differences

**Pack ice**





**Fast ice Barrow**



Fast ice Bering Strait

## Exploration of the Arctic Ocean

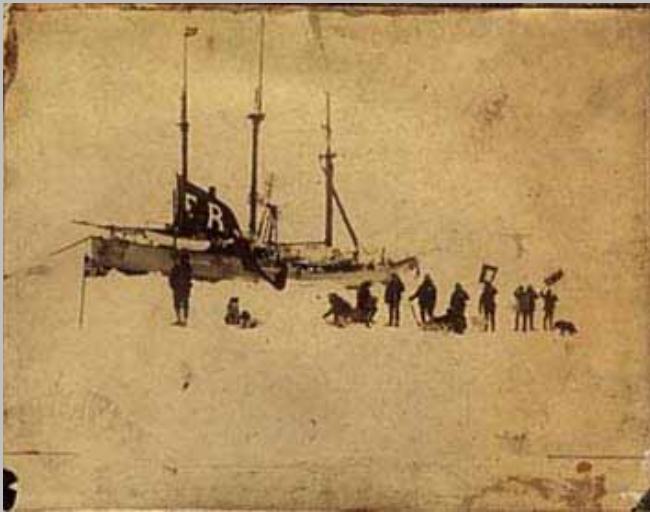


FRAM (1893-96)



Drift for 3 years





Chief scientist: Fridtjof Nansen


<http://nobelprize.org/peace/articles/sveen/>

<http://www.fram.museum.no>

Ambassador in London

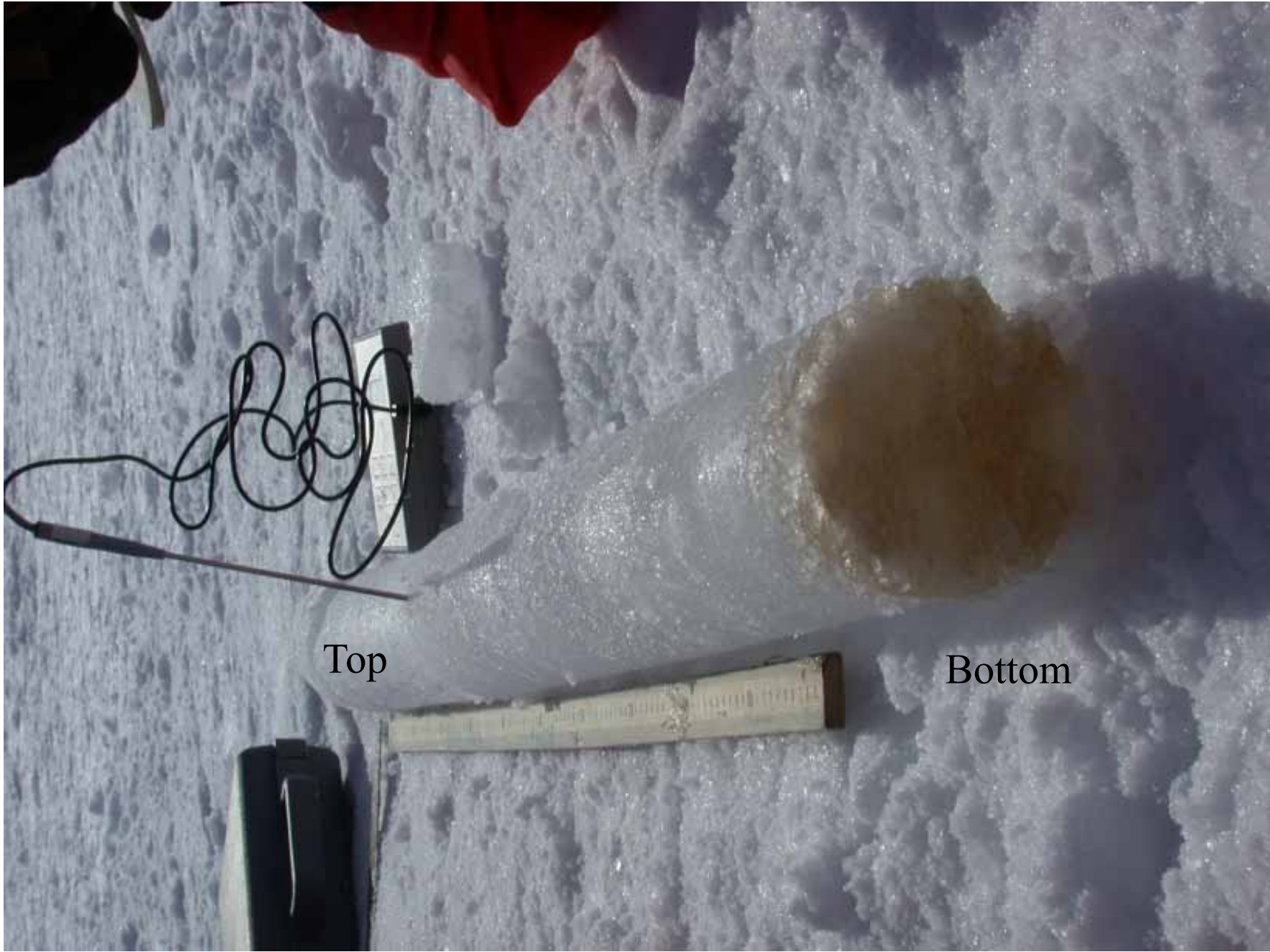
**USCGC Healy spring 2004**





Typical bottom community  
in spring 2002, Beaufort Sea

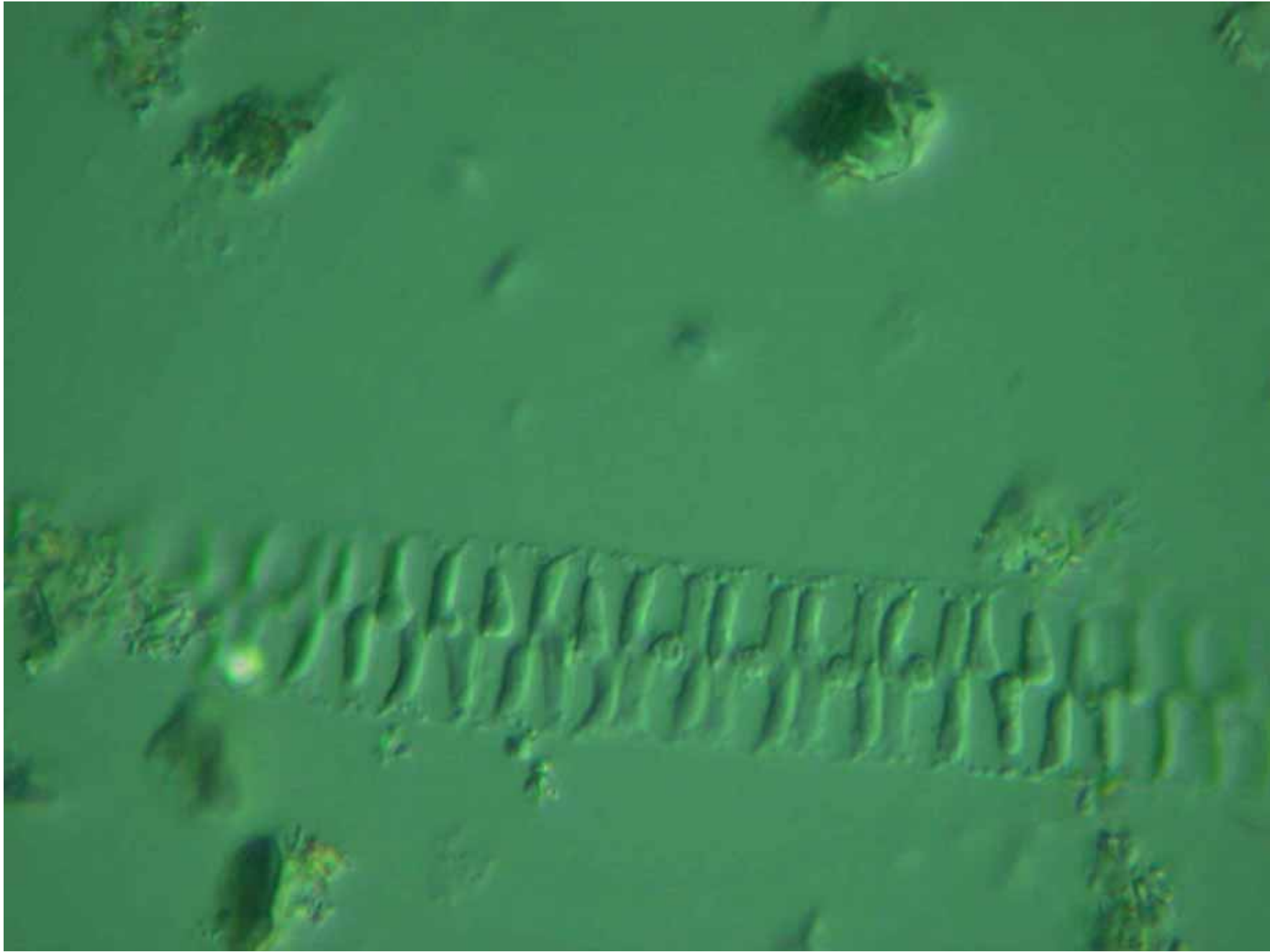
- Core diameter: 9 cm



Top

Bottom



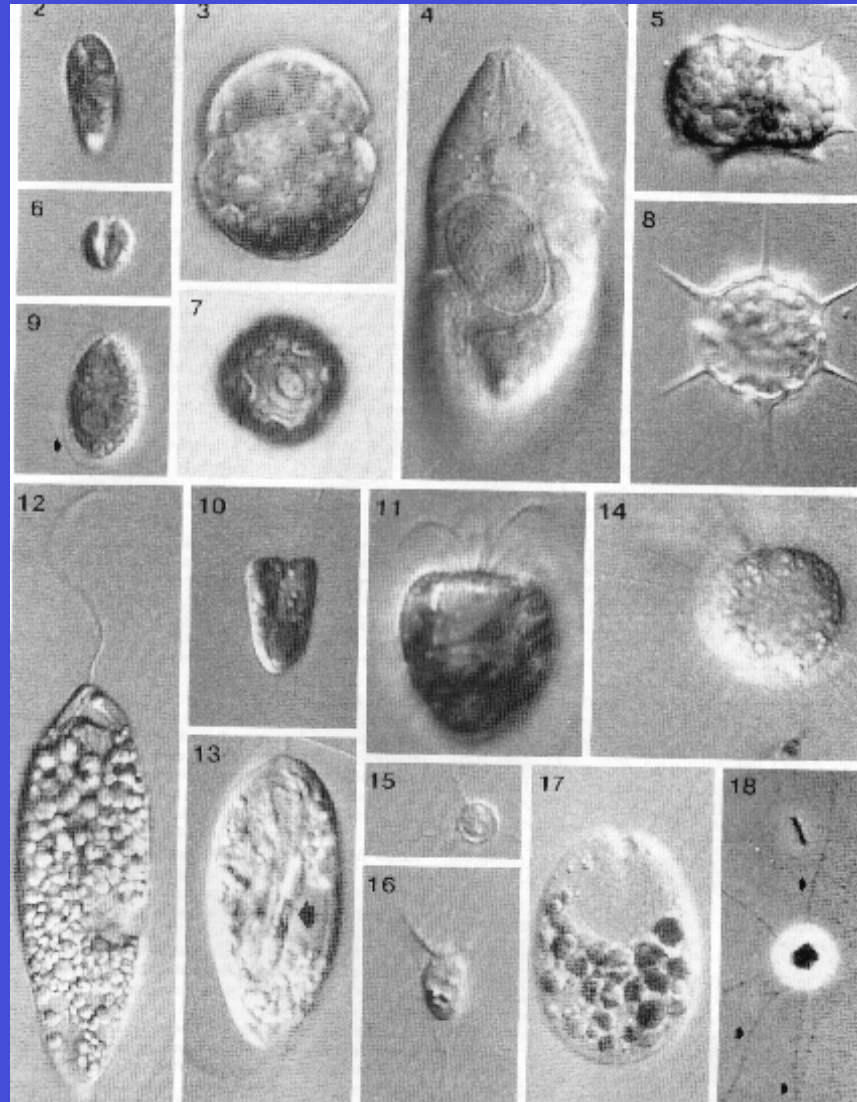




Sutherland (1852):

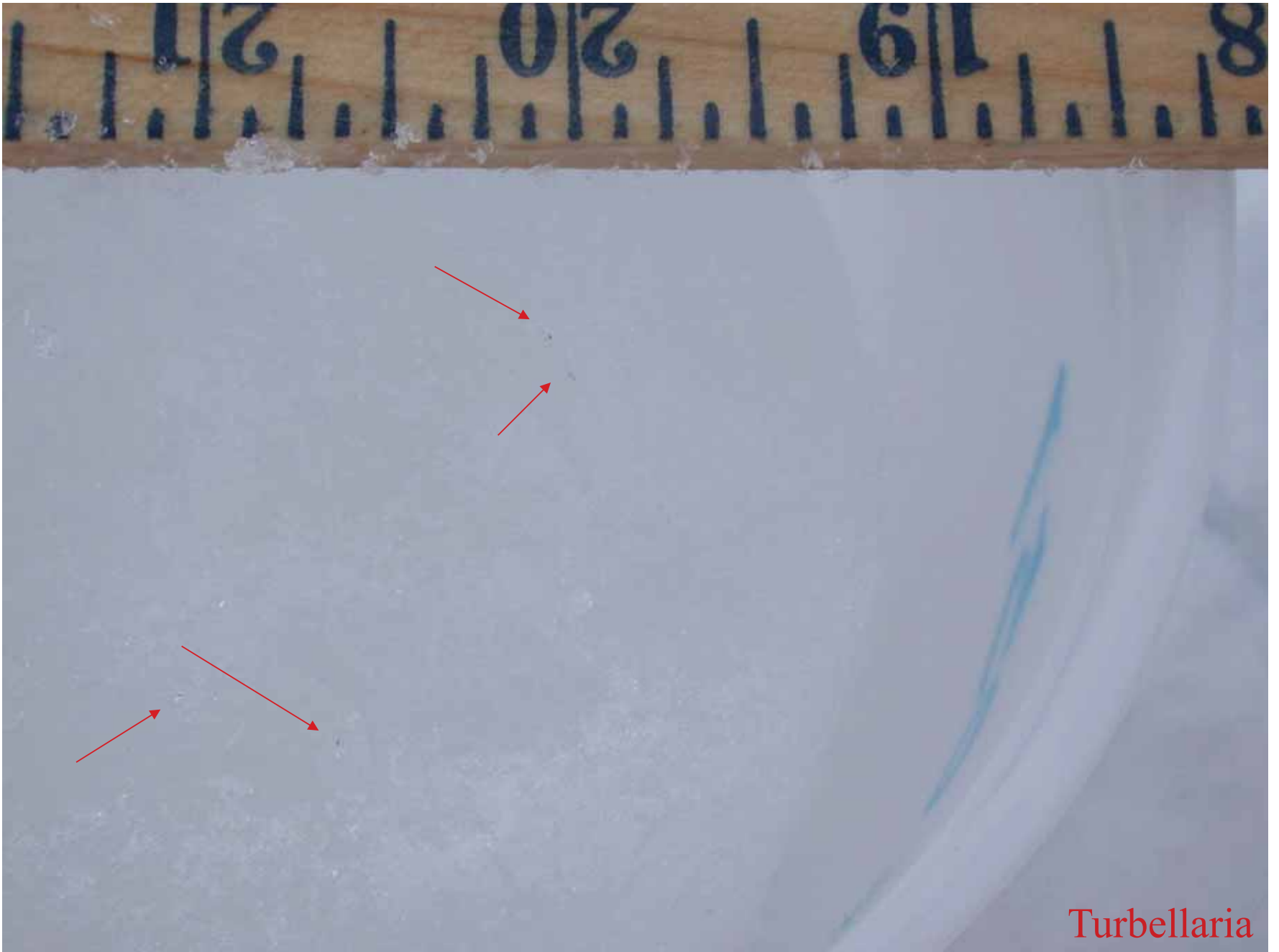
*“minute vegetable forms of exquisite beauty”*

## Life inside sea ice



Ikävalko & Gradinger (1997)

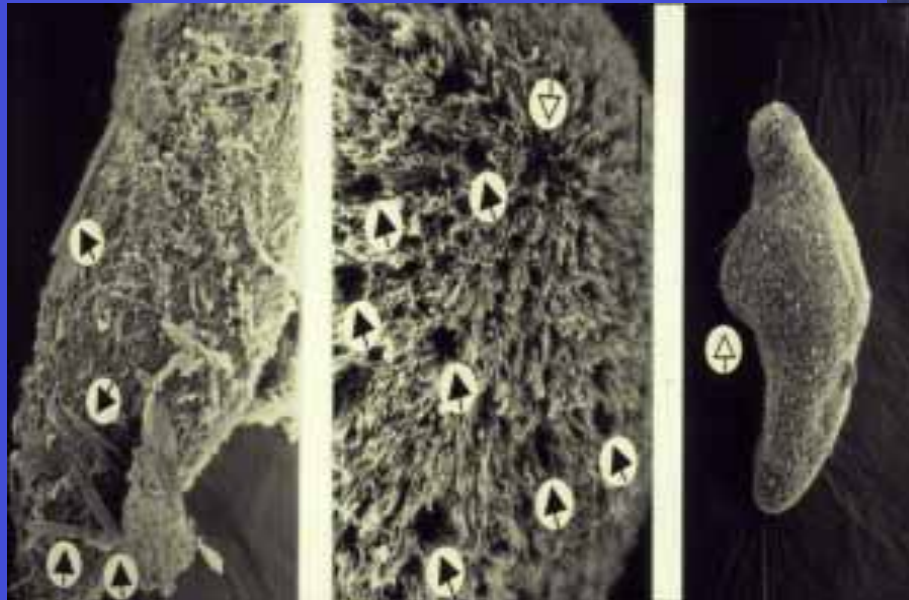
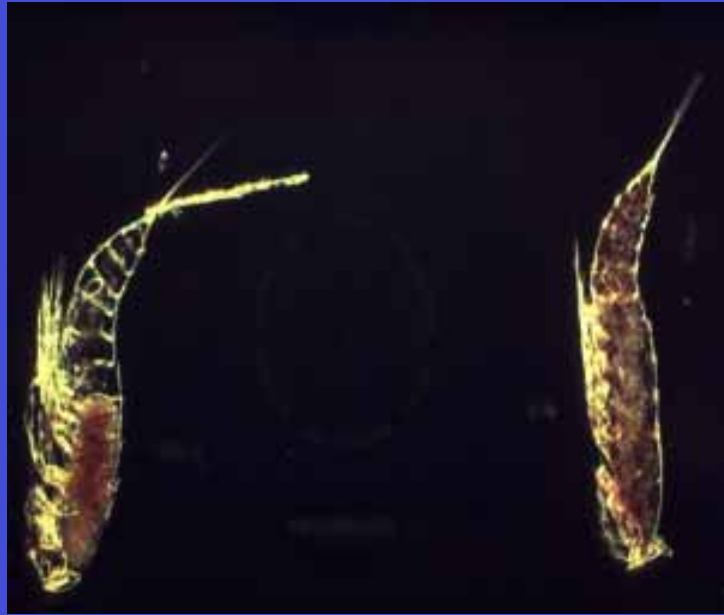




Turbellaria

# Sea ice fauna

## 2



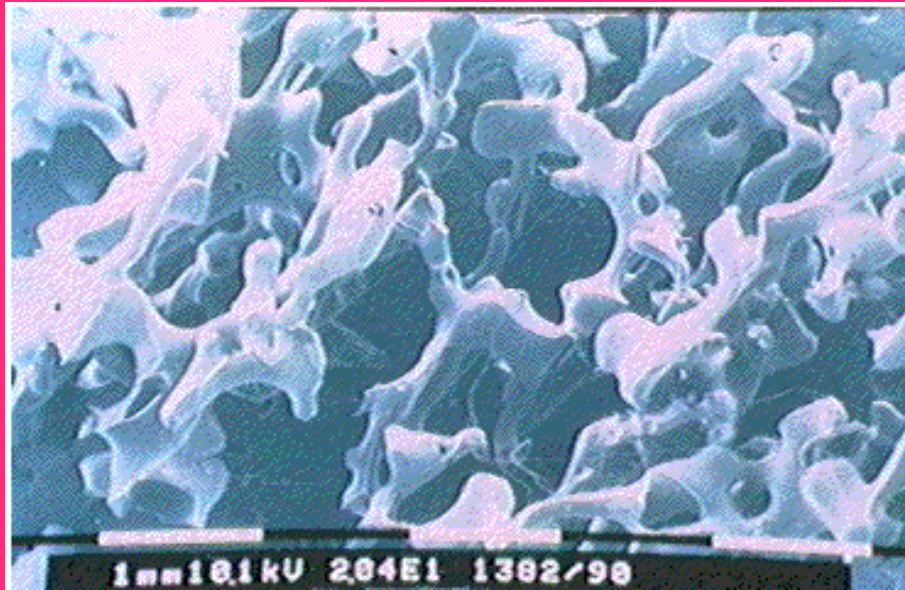




**Life in the sea ice  
In Barrow**

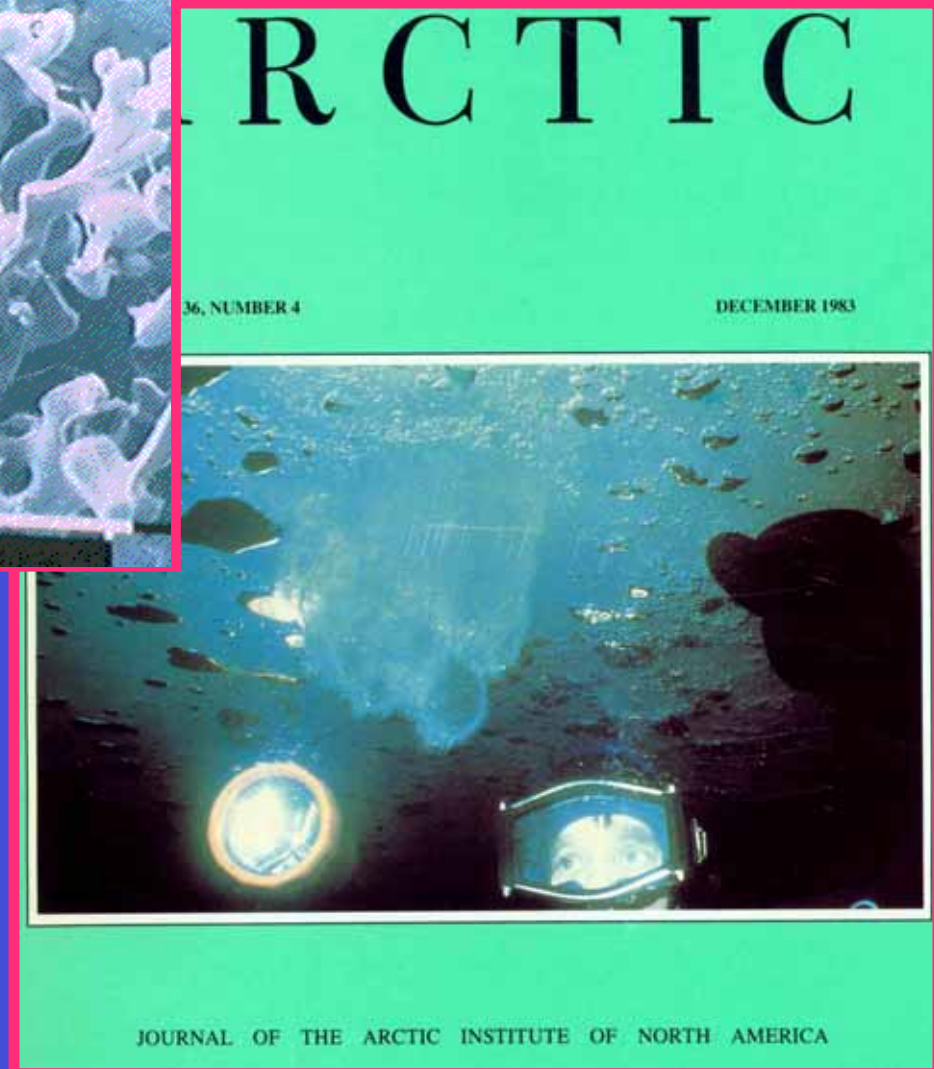
# Habitats

Weissenberger et al. (1992)



- brine channels

- interfaces



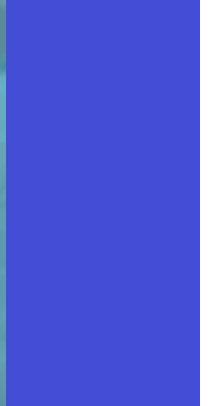
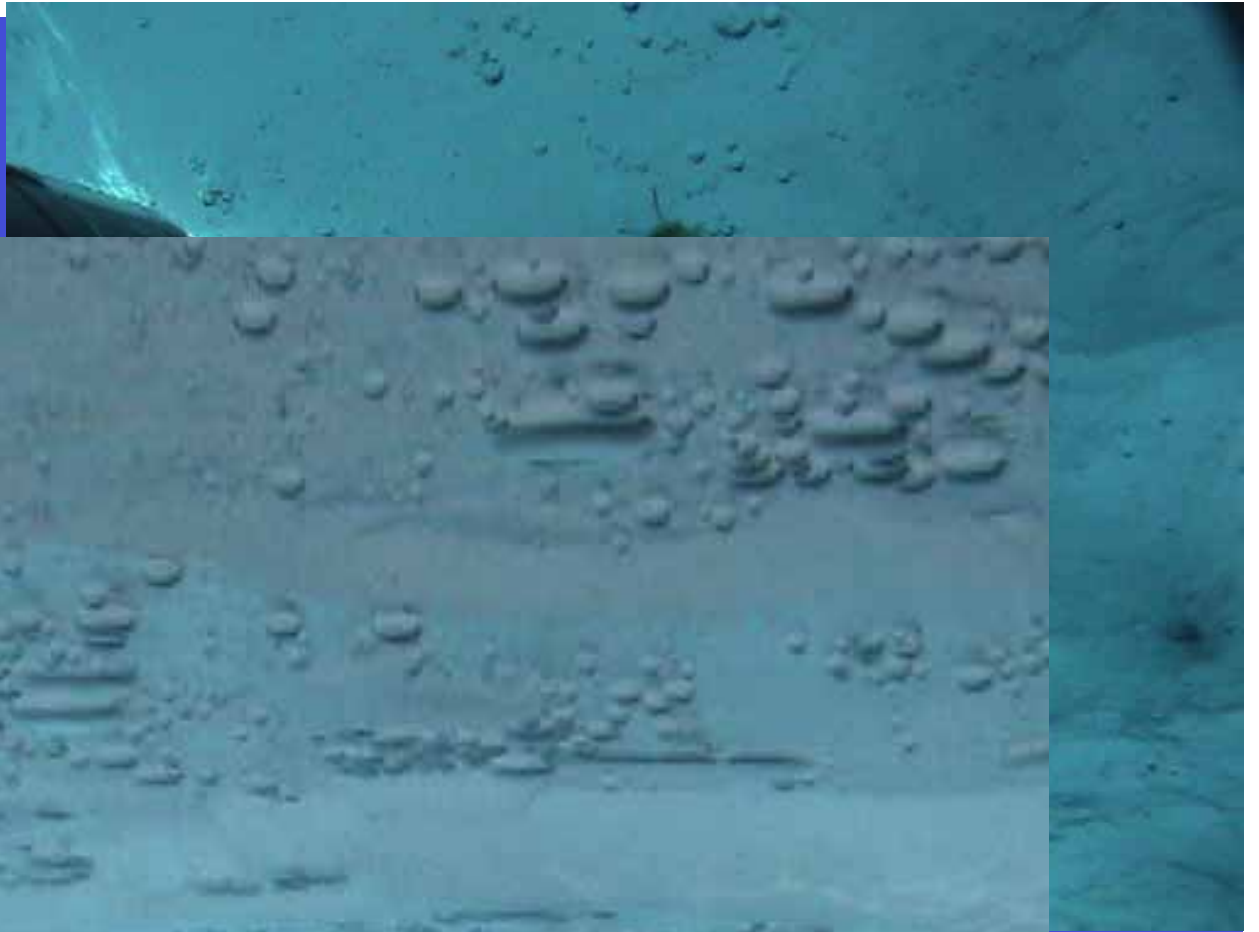


## Arctic under-ice amphipods



Werner (1997)

# Diving





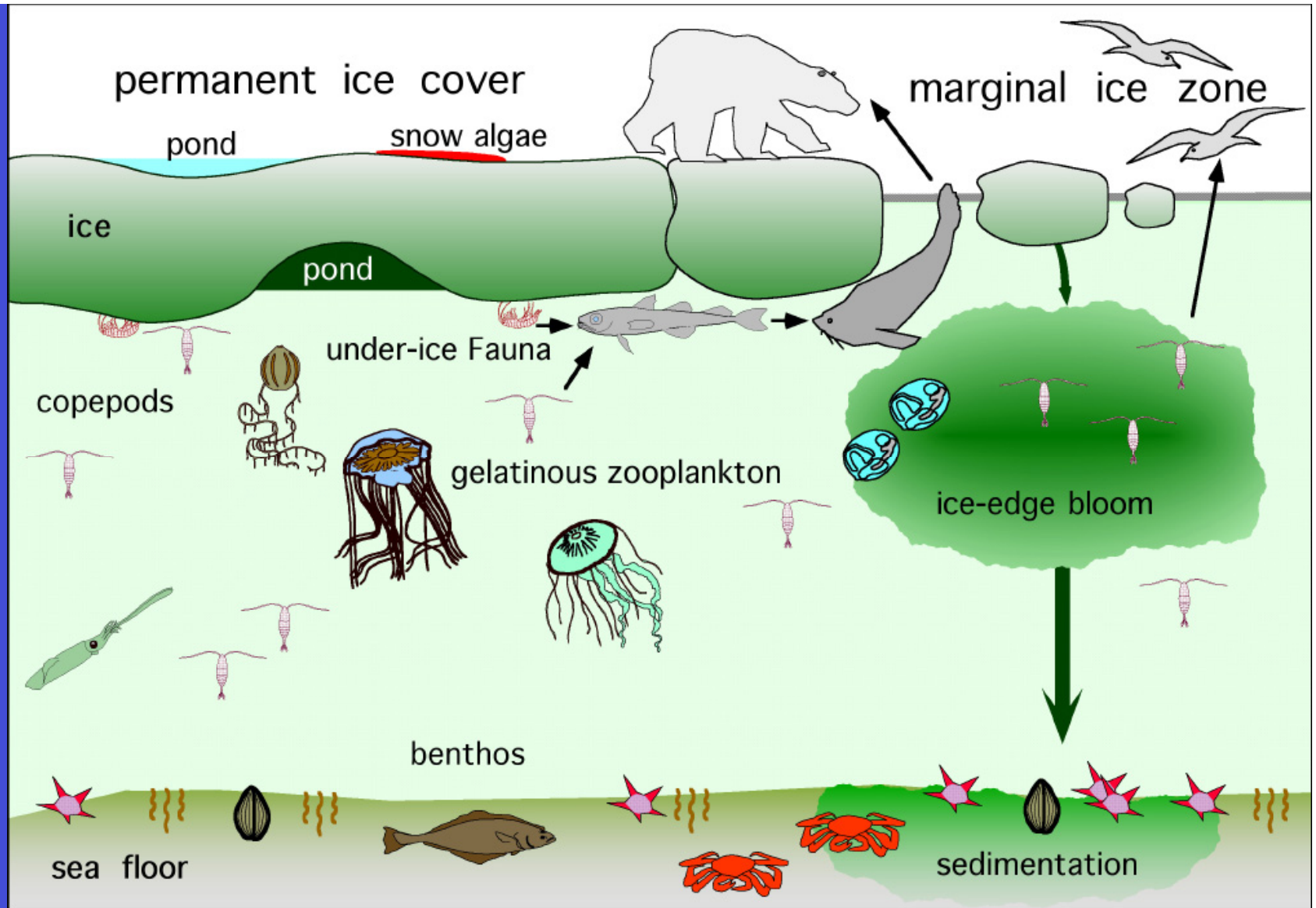


Figure 2. Schematic representation of the Arctic marine ecosystem and its interactions. Comprehensive taxonomic representatives and all interactions have not been included.