

Tidewater glaciers: why are they so attractive to arctic top predators?

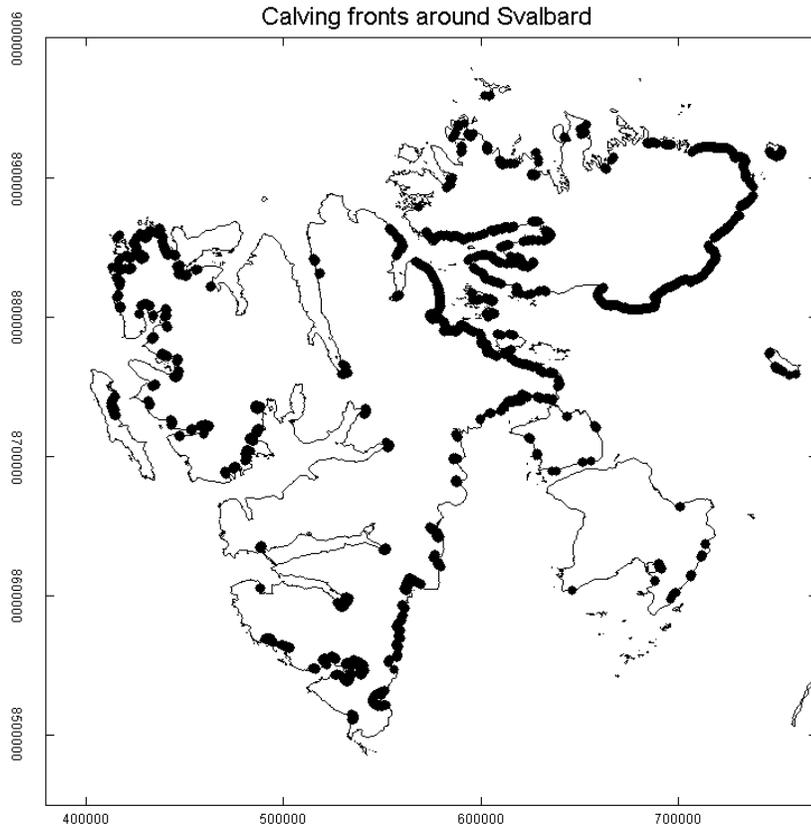
By Dr Harald Steen



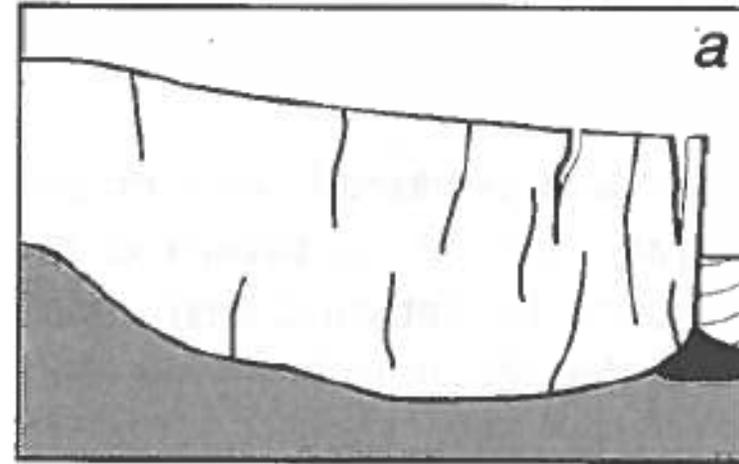
TIGRIF

TW-ICE

Svalbard tidewater glaciers



163 tidewater glaciers
in Svalbard



More than 60% of
Svalbard ice drains via
tidewater glacier

Total length of calving
ice-cliffs is 860 km





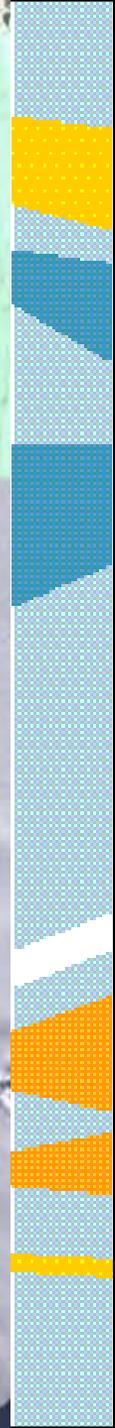
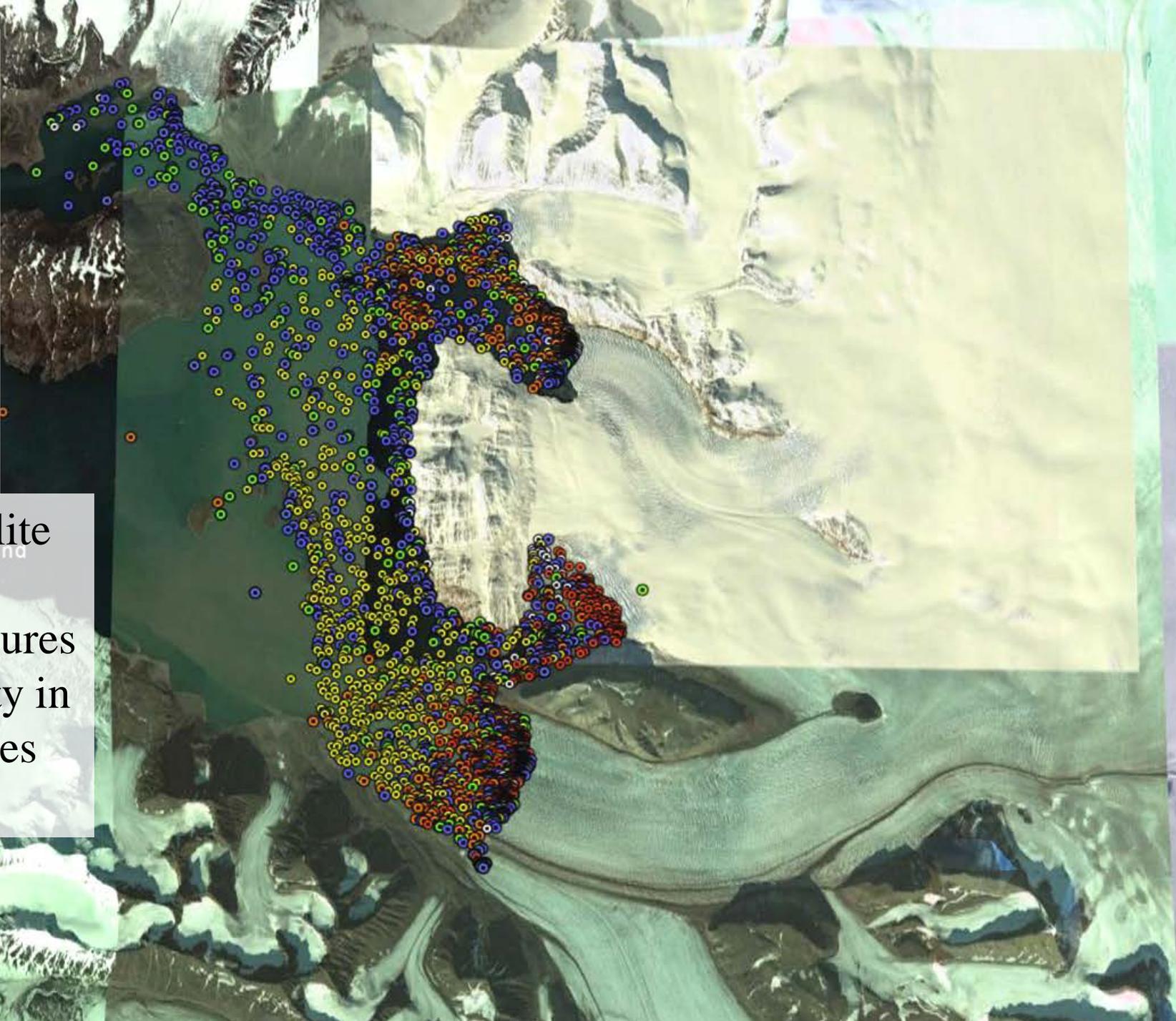
Kronebreen, Kongsfjorden in Svalbard

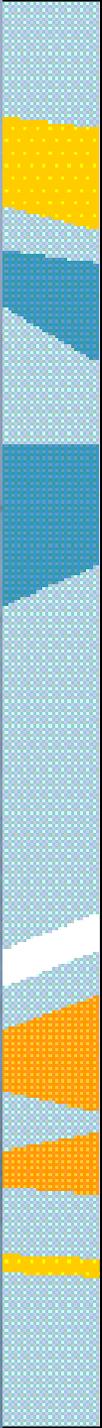






Ringed seal with Satellite
Relay Data Logger
(SRDL) that also measures
temperature and salinity in
the water masses it dives
through





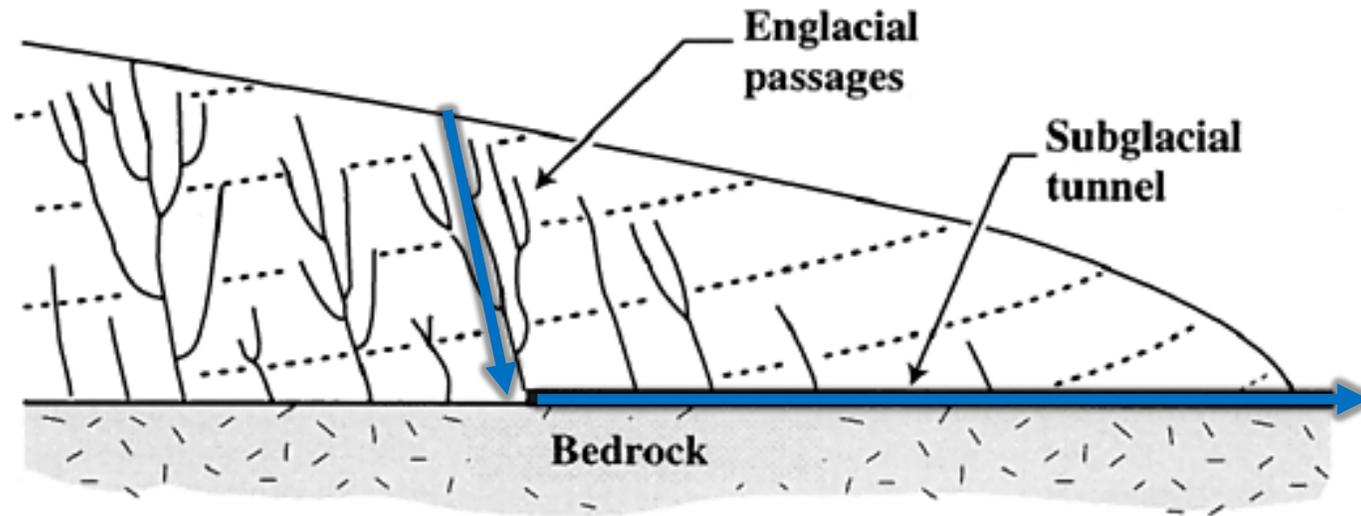


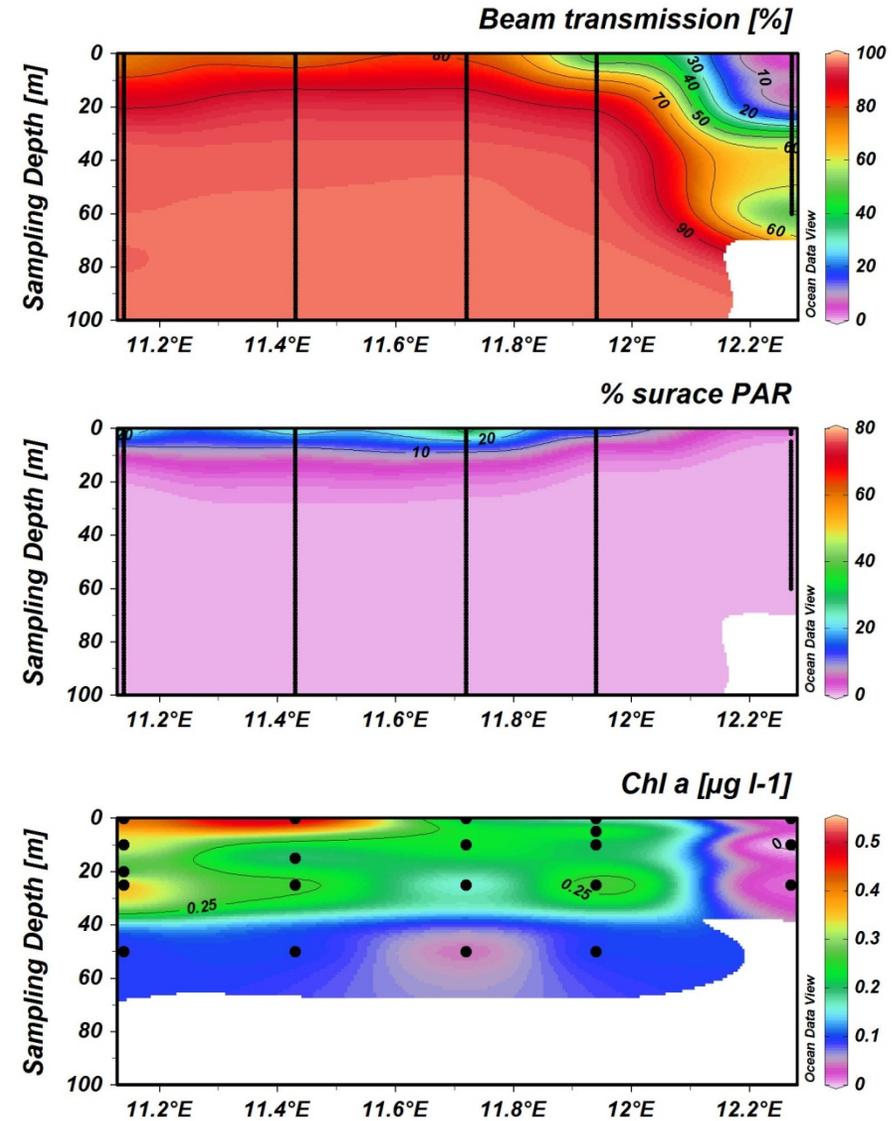
Figure 4. Fluid equipotentials (dotted curves) and a hypothetical network of arborescent englacial channels [after *Shreve*, 1985]. Reproduced with permission of the publisher, the Geological Society of America, Boulder, Colorado USA. Copyright @ 1985 Geological Society of America.



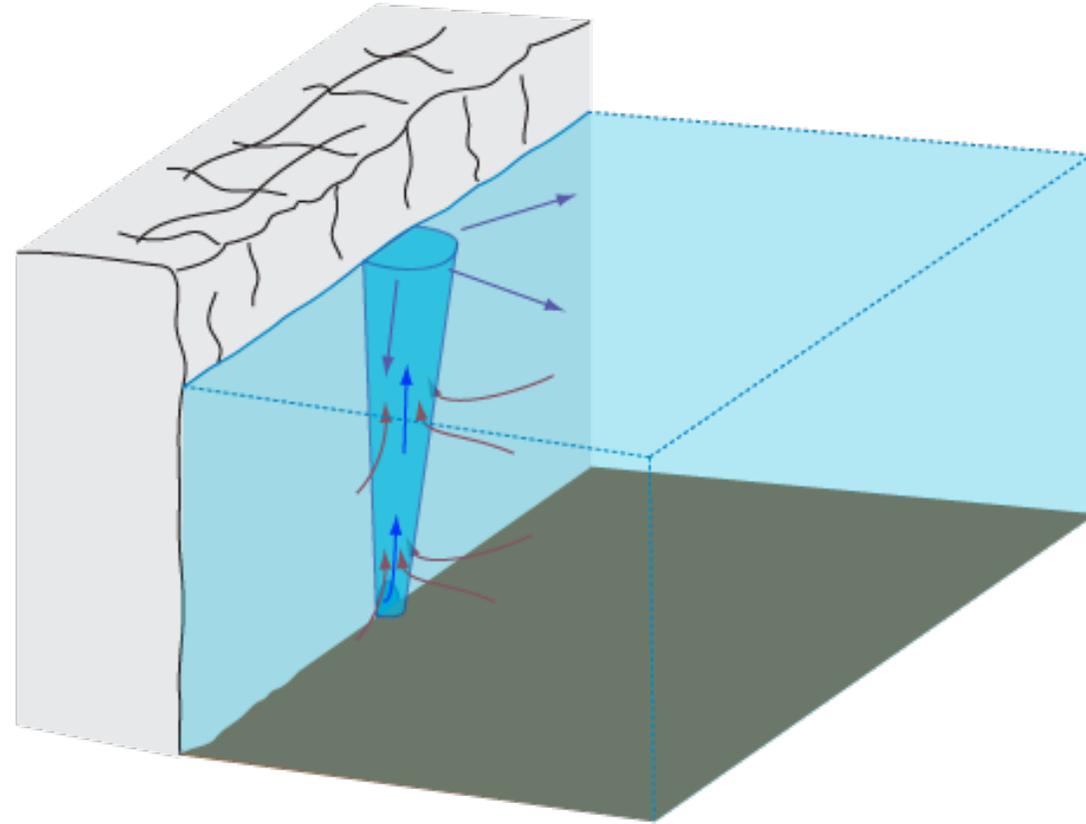
High sediment load limits PP close to the glacier during summer

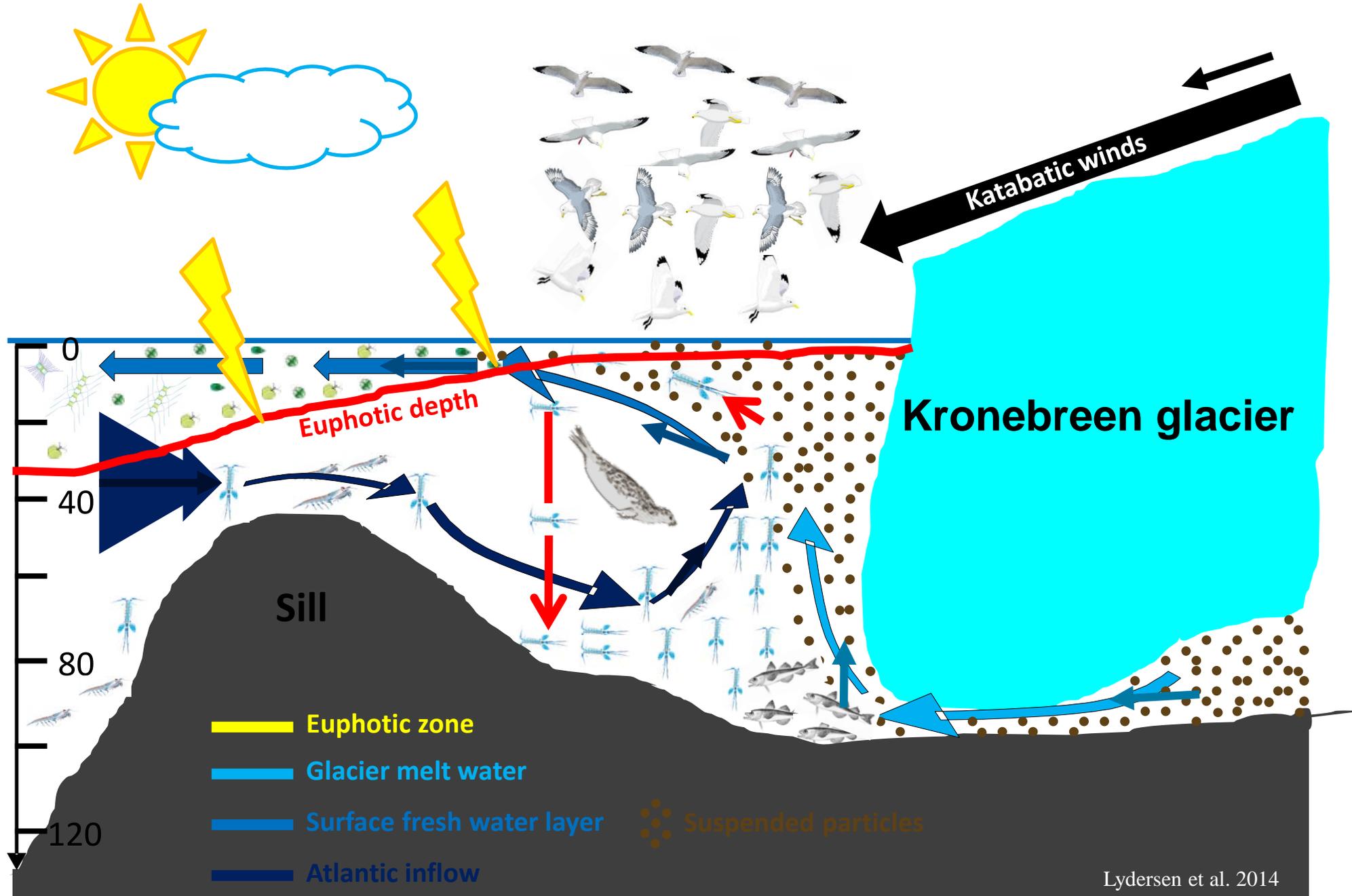


KongHau transect 2011



Seawater is entrained and draw zooplankton and fish with it to the surface







Zooplankton

Zooplankton biomass was as further out in the fjord

Not support for the «death trap» hypothesis

