



Product development from wax- esters, chitin and astaxanthin from *Calanus finmarchicus* and pelagic processing

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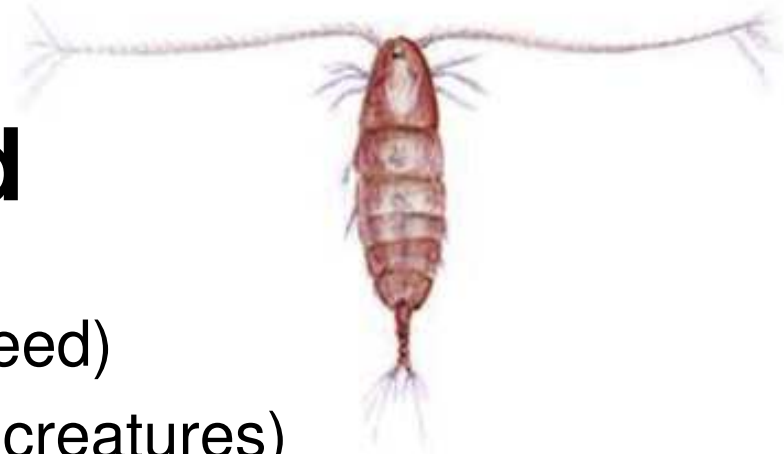
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Background



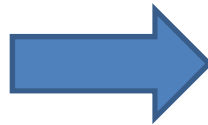
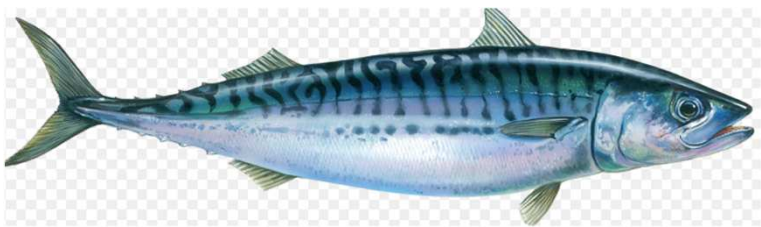
- *Calanus finmarchicus* (Rauðáta, e. red feed)
 - Mesozooplankton (large small ocean creatures)
 - Feeds on phytoplankton (microalgae, small plant creatures)
- *C. finmarchicus* contain lipids, astaxanthin and chitin
 - EPA/DHA
 - Wax esters
 - TAG
- Pelagic fish (herring, mackerel etc.) feed on *Calanus* and their lipid profile is in part reflected by their diet.





Objective

- Extracting and analyzing wax esters, astaxanthin and chitin from the copepod *C. finmarchicus* and from samples taken throughout the pelagic processing of herring and mackerel.
- Part of Stefáns PhD project and is a closed project.





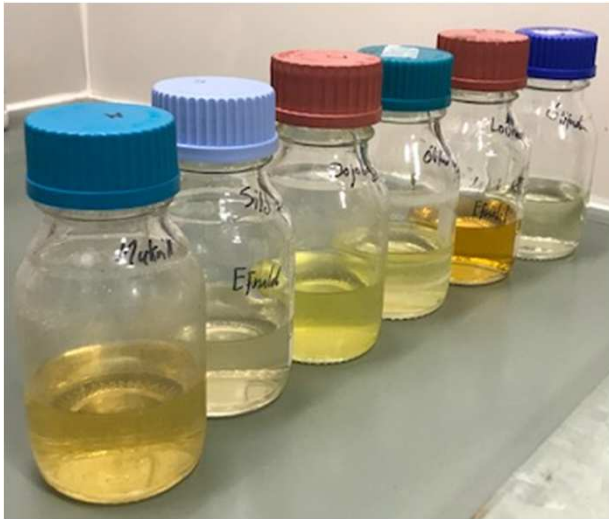
Cont.

- Compare different extraction procedures for wax esters
 - Temperature
- Measuring the properties of the wax esters along with the quality of astaxanthin and chitin
- Product development

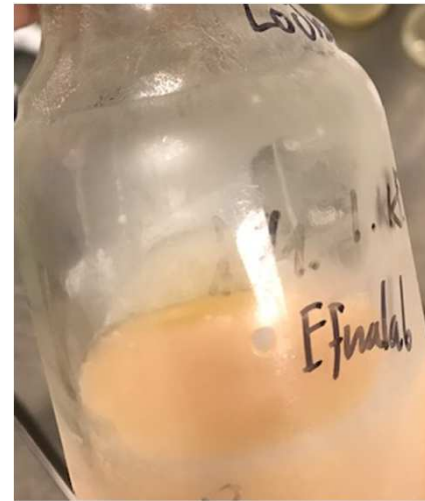
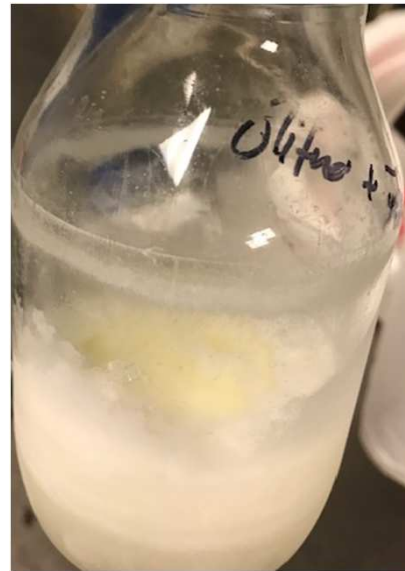




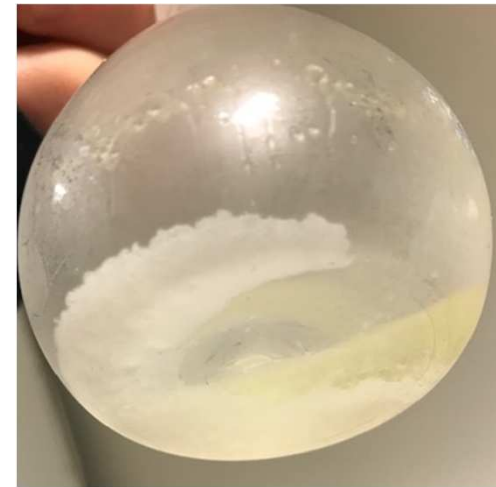
Example



Before freezing
3 kinds of fish oils and 2
kinds of vegetable oils
for comparison



-24°C.
Separation 2 layers



Filtration - refrozen

