



What's in a whale?

Blubber Contaminants and Feeding Ecology of Fin and Blue whales

Sara, Astri, Isak and Samuel

Introduction

POPs persist in the environment and biomagnify through Arctic food webs. Fin and blue whales may differ in contaminant levels due to diet and sex, as males retain POPs while females offload them to their offspring.

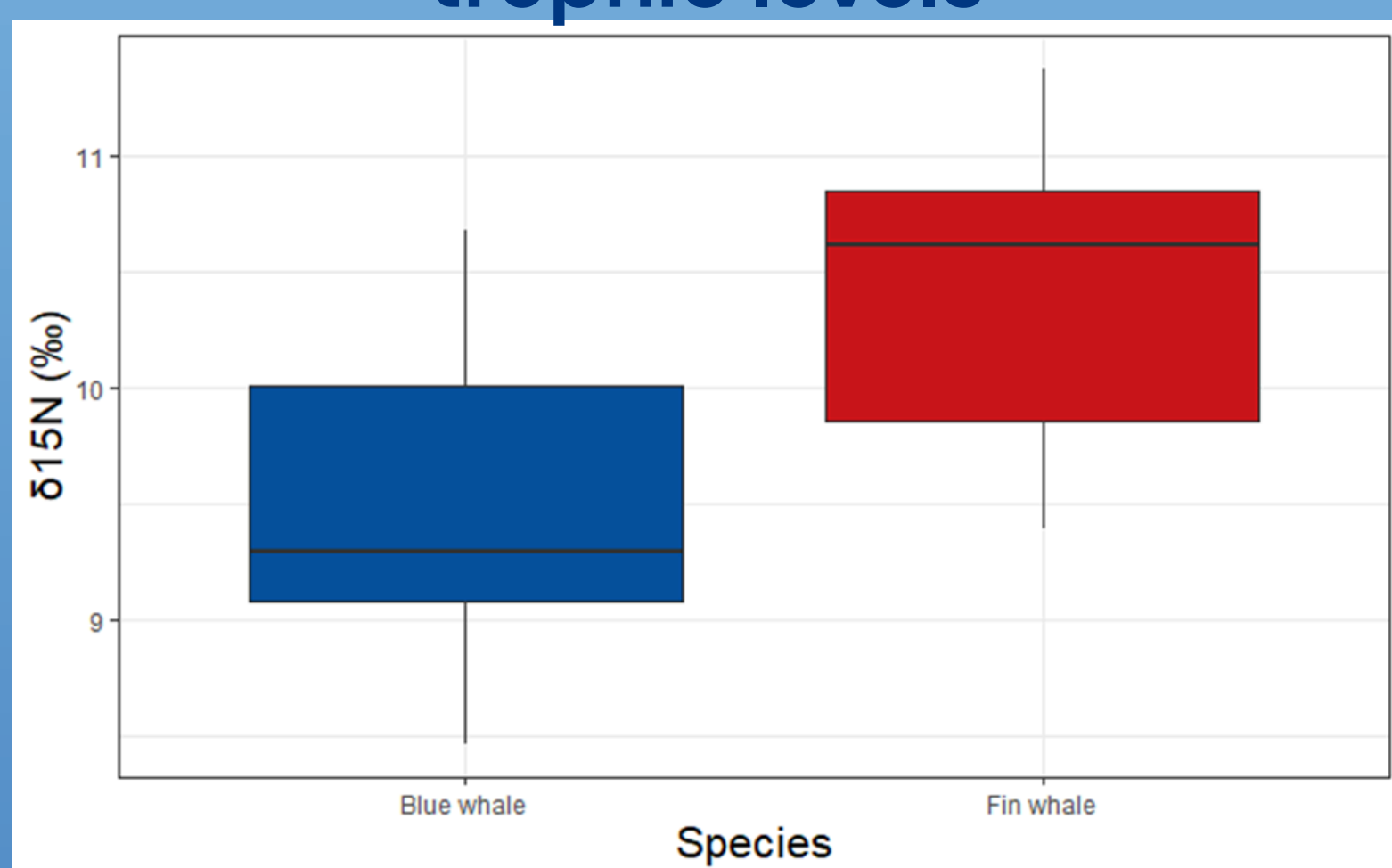
Aim: Assess how **species**, **sex**, and **trophic rank ($\delta^{15}\text{N}$)** affect POP accumulation in baleen whales.

Material and methods

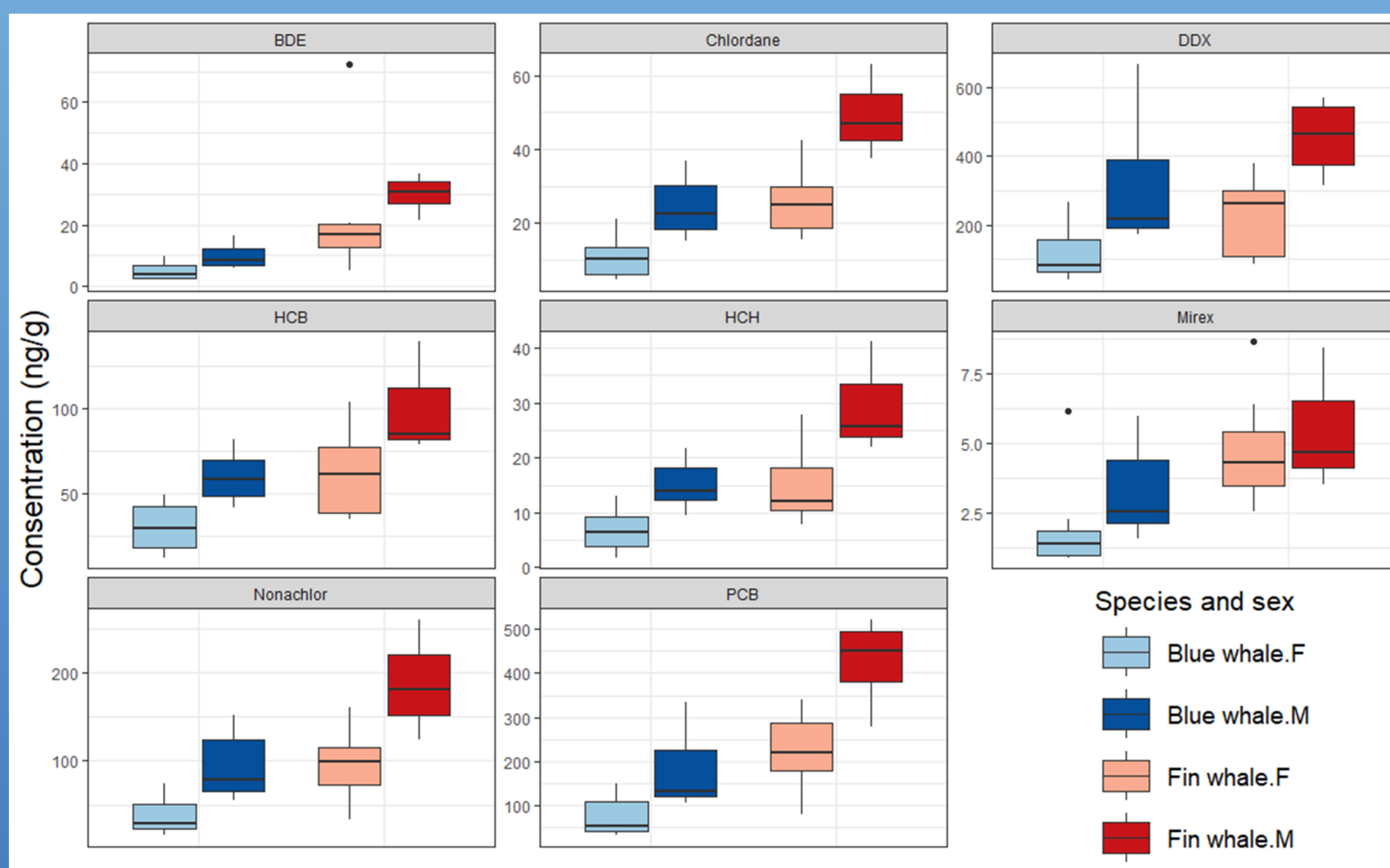
- **Samples:** 18 fin and 12 blue whales
- **Sample area:** Svalbard
- **Variables:** Species, sex, eight POP groups and stable isotope $\delta^{15}\text{N}$.



Fin whales feed on higher trophic levels



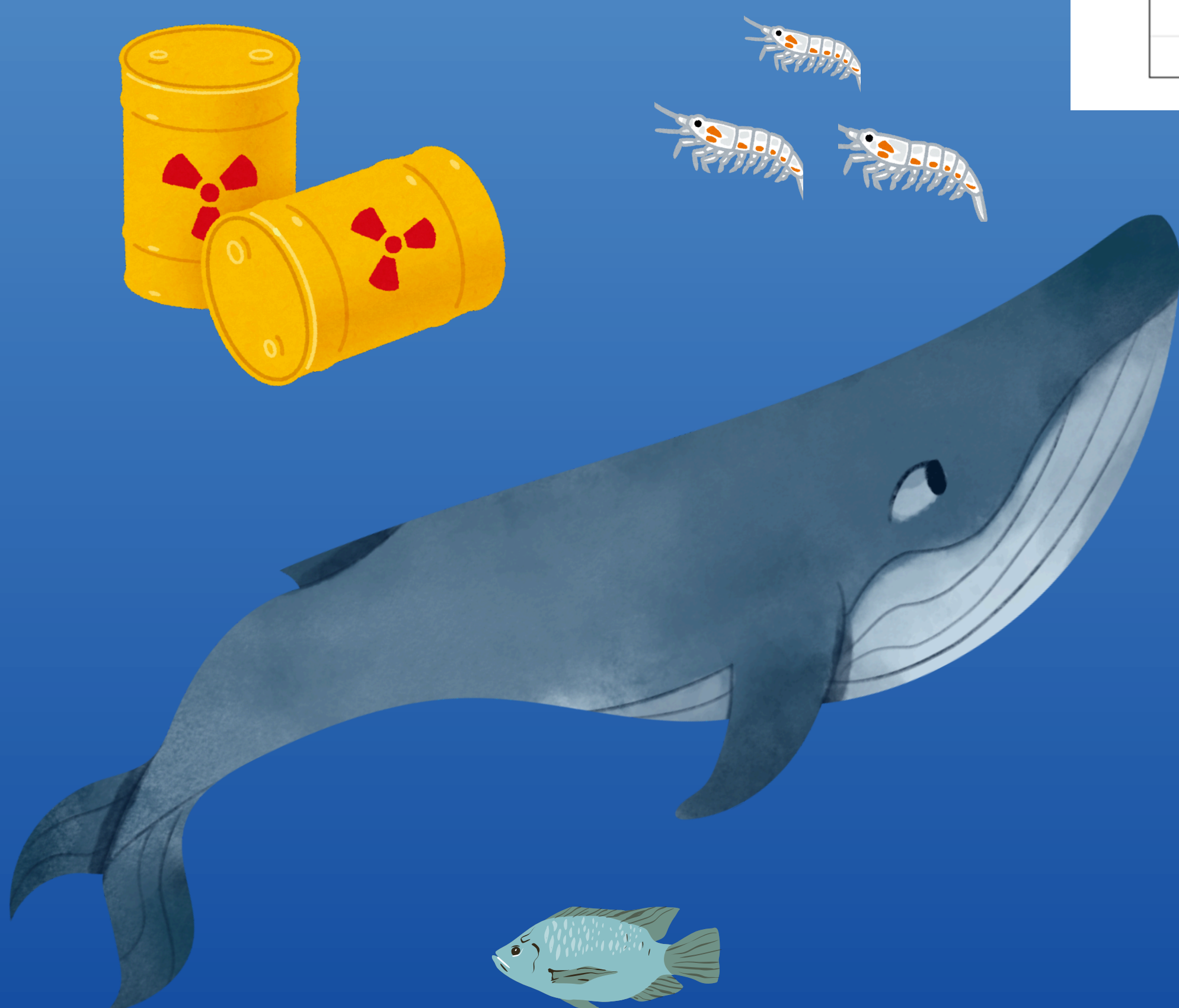
POP levels in both species and sexes



Discussion

Males had higher levels of POPs than females, supporting maternal offloading in females. Fin whales accumulated higher levels of POPs, as well as having higher $\delta^{15}\text{N}$ values than Blue whales. This indicates that Fin whales feed on higher trophic levels and that they therefore accumulate more pollutants. Sex and feeding ecology together shape contaminant loads in Arctic baleen whales.

Future work: Separate PCB congeners and study maternal offspring transfer.



300A.15