Something smells fishy

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Background:

- OA impacts fish behavior and senses
- Inhibited olfaction affects foraging, predation, predator avoidance, kin recognition, migration, homing ability

Research question:

How does ocean acidification impact the olfaction in fish in relation to migration and diet?

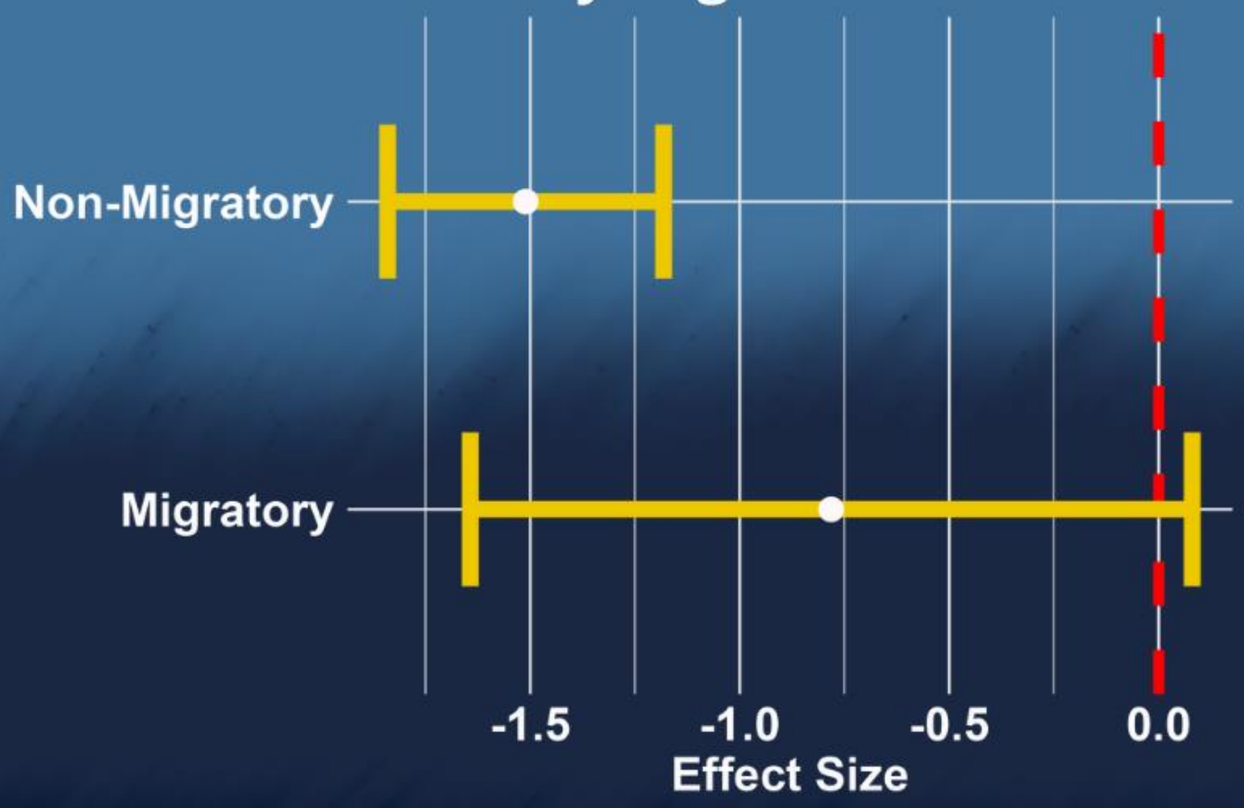
Materials and methods:

- Dataset from meta-analysis by Clements et al. (2022)
- Species-specific traits from Fishbase
- Effect sizes calculated

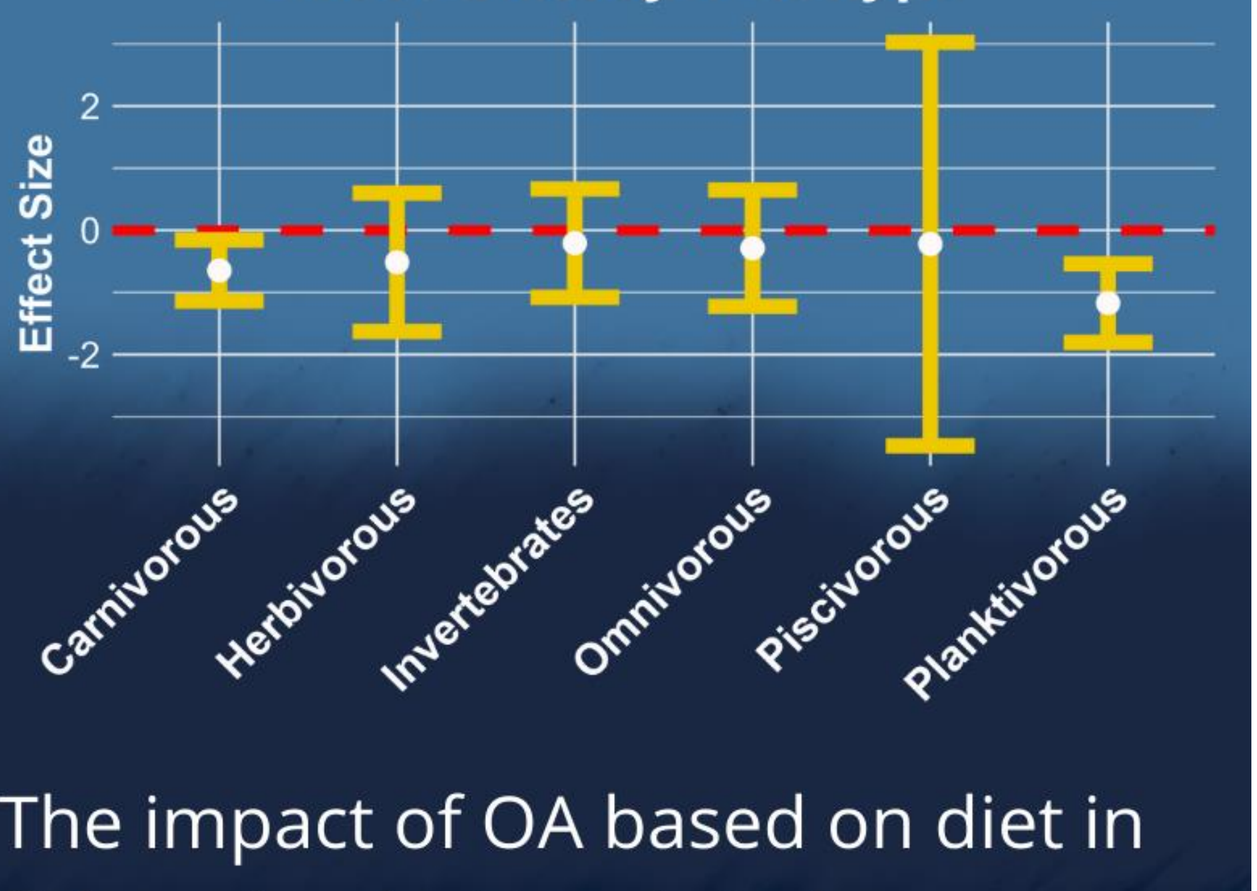
Results:

- Non-migratory fish impacted to a greater extent
- Fish with planktivorous and carnivorous diets impacted to a greater extent

Effect Sizes by Migration Status



Effect Sizes by Diet Type



Conclusion:

Migratory fish are less impacted than non-migratory fish

The impact of OA based on diet in fish varies, but tends to be generally minimal

References:
Clements, J.C., Sundin, J., Clark, T.D., Jutfelt, F., 2022. Meta-analysis reveals an extreme "decline effect" in the impacts of ocean acidification on fish behavior. PLOS Biology 20, e3001511. https://doi.org/10.1371/journal.pbio.3001511

FishBase. (n.d.). *FishBase: A global information system on fish species.* Retrieved October 1, 2024, from https://www.fishbase.us