A "TAIL" OF TWO HABITATS

Shelf and Offshore Contributions to Juvenile Salmon Size

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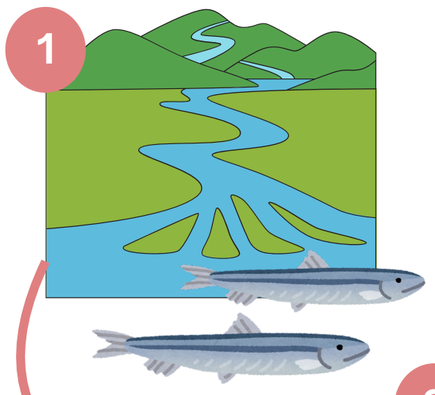
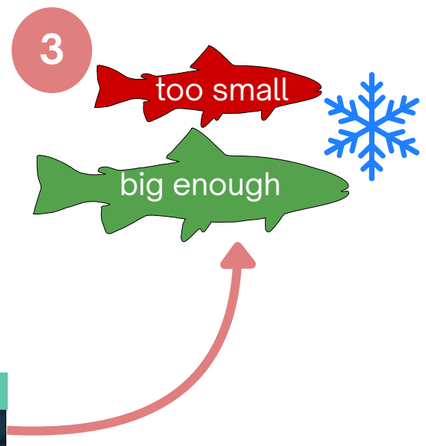
WHY?



Juvenile salmon feed on the **continental shelf** during their **first marine summer.**



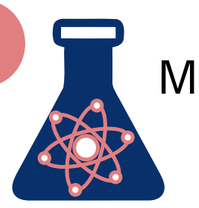
Shelf feeding may help them reach their **critical size** and survive the first marine winter, but its contribution relative to the open ocean is unknown.



HOW?

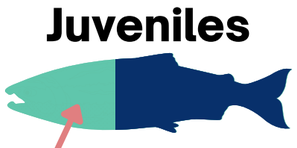


Chum and sockeye salmon sampled in the **Gulf of Alaska** in **late winter.**



Muscle tissue analysed to trace **feeding sources.**

Juveniles



Shelf Feeding:
% $\delta^{15}N$ above baseline



Adults = baseline
(0% shelf feeding)



1 icon ≈120 zooplankton per m^3

Do juvenile salmon that feed more on the shelf grow bigger?

SHELF **OPEN OCEAN**

It depends on the year!

2019



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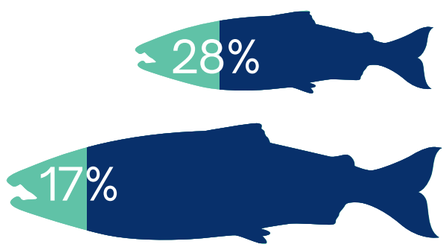
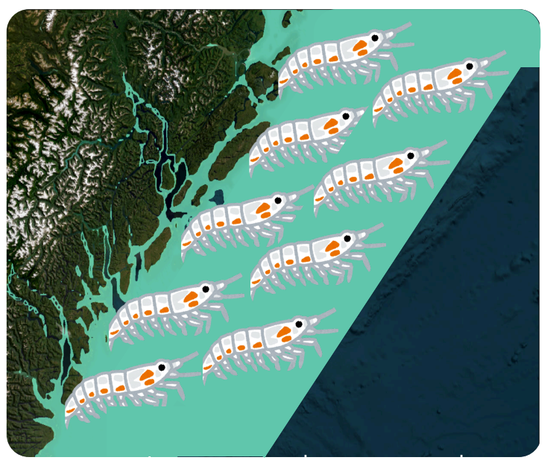
Chum



Shelf feeding predicts juvenile size, but the relationship's direction may depend on the **balance of shelf and offshore prey**.

2020



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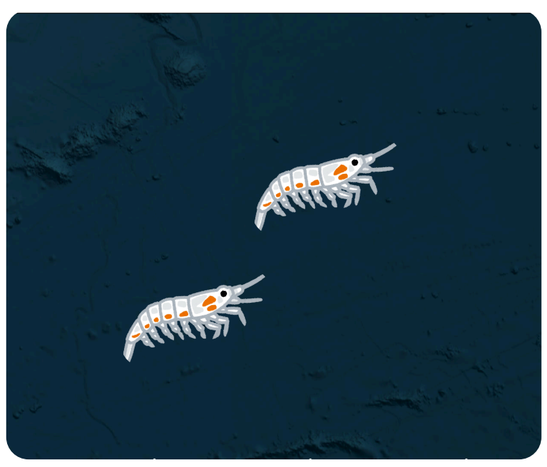

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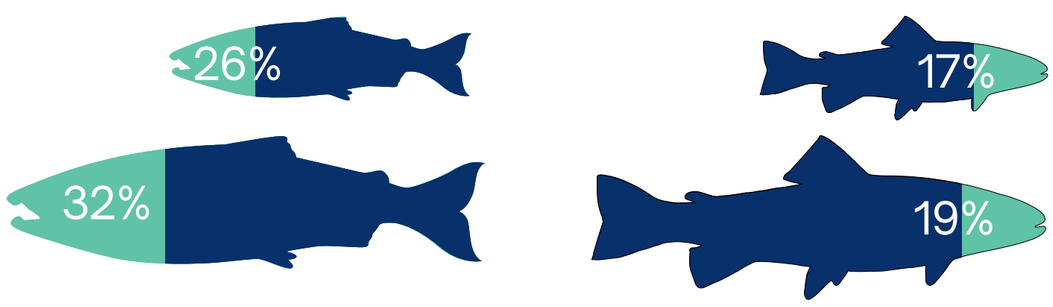
Chum *Sockeye*



2022



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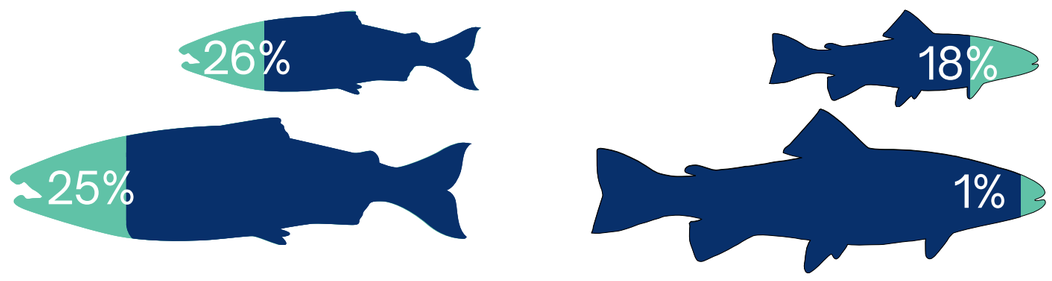
Chum *Sockeye*



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