

European seabass larvae readily intercept and consume inert AquaSnow diets showing survival comparable to rotifer/Artemia. This is the first demonstration of AquaSnow's full live feed replacement potential.

THE DETECTION AND INTAKE OF INERT MICRODIETS BY LARVAL FISH IS PREDOMINATED BY SENSORY STIMULI OTHER THAN MOVEMENT: A PROOF-OF-CONCEPT STUDY.

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Introduction

- Live feeds (rotifers, artemia, algae) dominate marine hatchery rearing, but are costly, variable in supply, and can compromise water quality.
- Inert diets have long been limited by poor acceptance and poor water quality.
- This study explores the feasibility of using AquaSnow, a novel inert larval diet designed to replace live feed.

Methods

Experiment 1 – Sensory proof-of-concept

- Species: European seabass larvae (5 dph).
- Setup: Individual cuvettes, video recordings.
- Diets: AquaSnow particles vs Artemia nauplii.
- Observation: Larval feeding response, ingestion, gut fill.
- Measurements: pictures with binocular using white and blue LED light.

Results

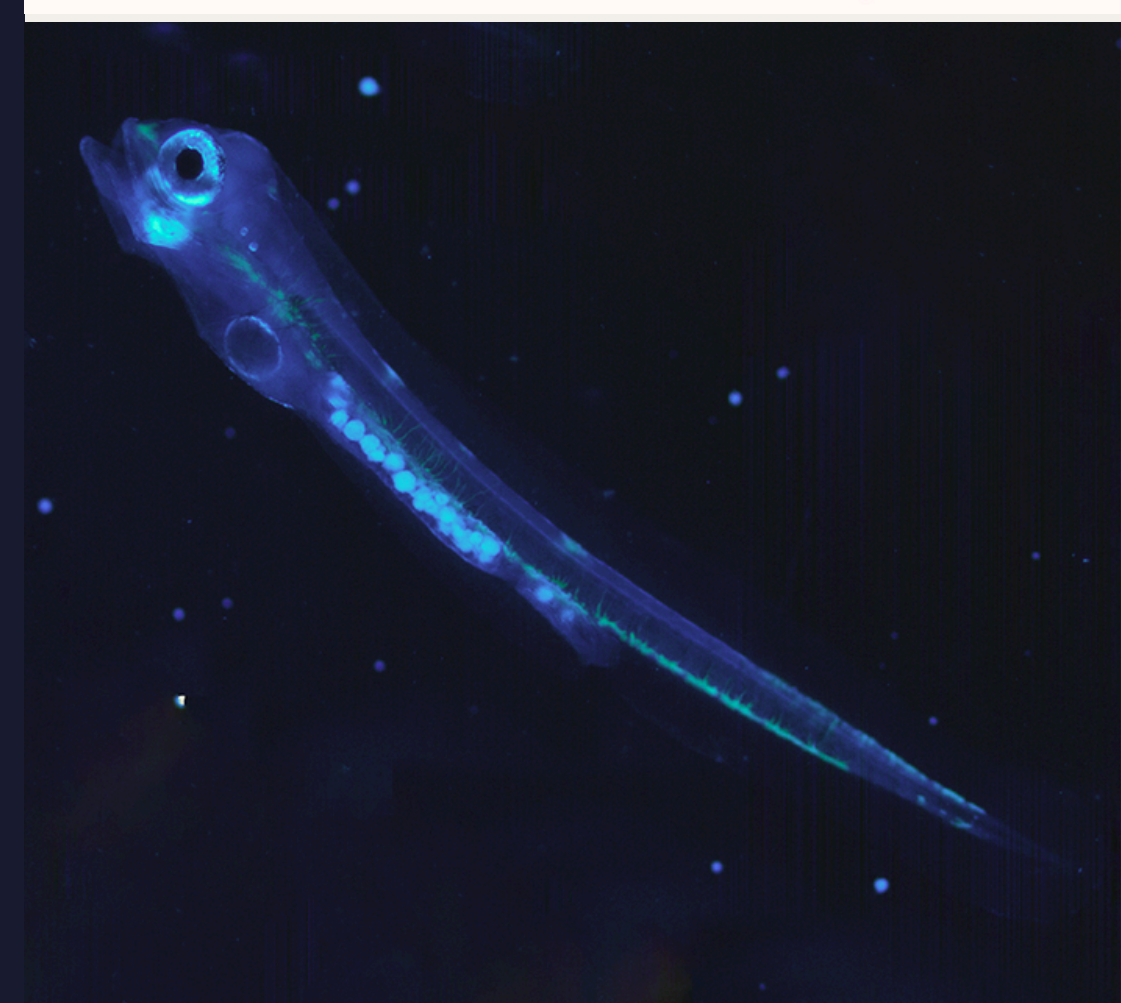
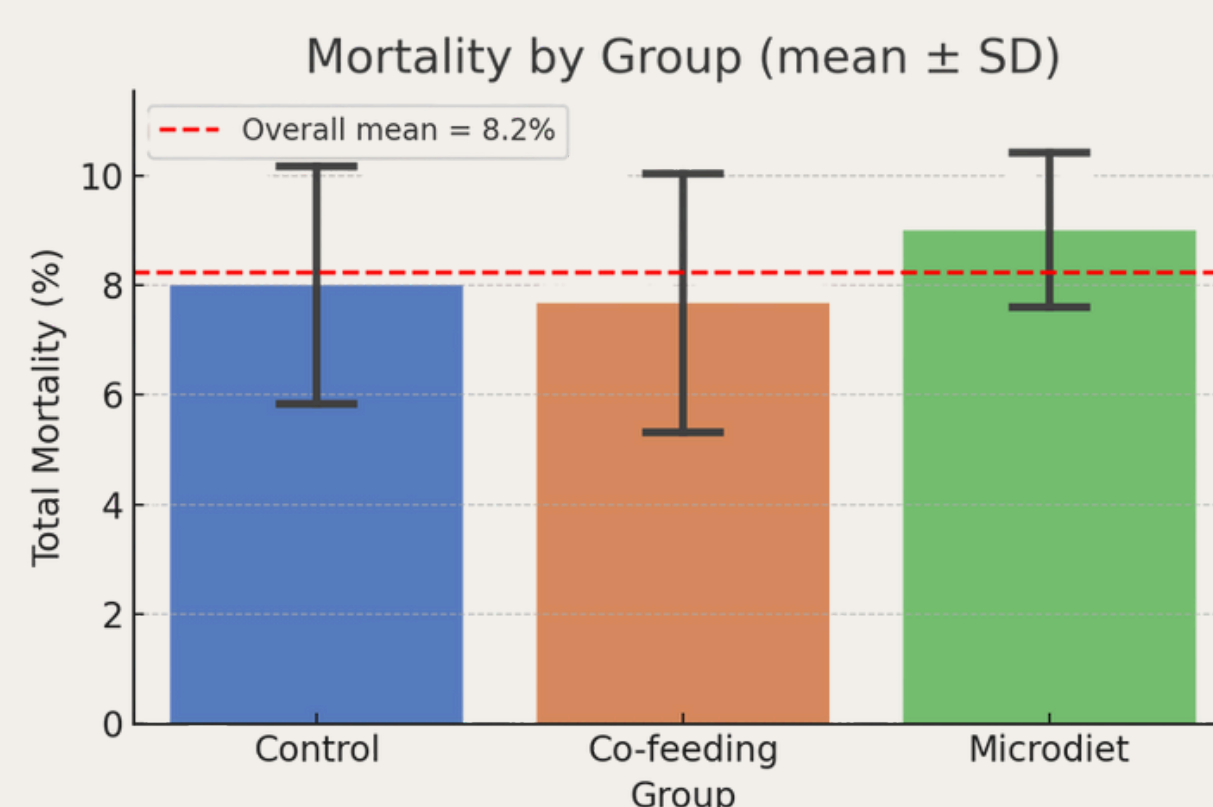
- Survival: comparable across all treatments.
- Feed acceptance: nearly 100% ingestion through the trial
- Water quality: higher stability in Aqua Snow tanks, lower bacterial activity.

Discussion and Conclusion

- Larvae do not require moving prey for feeding.
- Hypothesis: chemical+visual cues from feed particles attract larvae and high particle density increases encounter probability.
- AquaSnow shows strong potential as a full live feed replacement.

Experiment 2 – Tank-based replacement trial

- Species: European seabass larvae (4–12 dph).
- Setup: 120 l tanks, ~12,000 larvae per tank, in RAS
- Treatments (in triplicate):
 - Rotifers + Artemia (control).
 - 50:50 live feed + AquaSnow.
 - AquaSnow only.
- Measured: survival, gut fill, water quality.



AquaSnow

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Scan to see the AquaSnow
in action!

