**ELECTRICAL TRAWLING FOR BROWN SHRIMP: IMPACT ON YOUNG LIFE STAGES IN NURSERIES & SPAWNING AREAS**

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**INTRODUCTION**

Catching shrimp without touching the seafloor by electrical stimulation results in:
- Discard reduction 65%
- Less bottom contact 80%
- No immediate effects on adult fish!

**RESULTS**

**EMBRYONATED EGG STAGES**

- No significant difference in survival over all egg stages.
- No significant difference in Hatching rate between control and exposed groups.

**LARVAL & JUVENILE STAGES**

- Handling effect of stage
- Mortality is significantly higher in the exogenous stage (OR 1.94 p<0.0014)
- No difference in survival between exposed and control groups in the other larval stages or the juvenile stage

**FUTURE RESEARCH**

**THE EXOGENOUS LARVAL STAGE**

Morphological analysis:
- Differences in yolk resorption, length, growth,...
- Deformations

**REPEAT THIS EXPERIMENT ON SOLE (Solea solea)**

A flatfish with a special metamorphosis

**MATERIAL & METHODS**

**Cod (Gadus morhua) eggs, larvae and juveniles**

- Expose for 5 seconds to 150V/m
- Count survival after 1 week
- Sample during further development

**RESULTS**

**EMBRYONATED EGG STAGES**

No significant difference in survival across all egg stages.

**LARVAL & JUVENILE STAGES**

Handling effect of stage
- Mortality is significantly higher in the exogenous stage (OR 1.94 p<0.0014)
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