



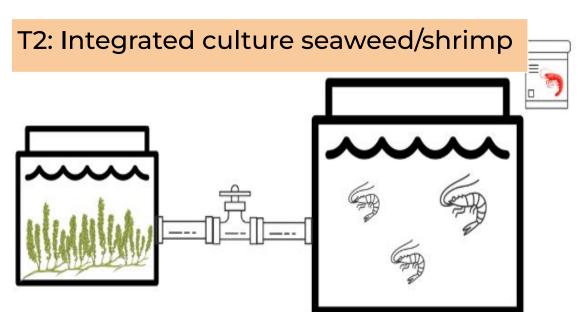
EFFECTS OF SEAWEED INTEGRATION INTO RECIRCULATING SHRIMP AQUACULTURE

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Introduction

- → 3 recirculating aquaculture systems (RAS)
- → 95% water reuse
- → Daily water quality monitoring







Aim

- → Effect of integrated culture of Caulerpa lentillifera with shrimp *L. vannamei* in RAS
- → Feeding trial to test the nutritional nutraceutical properties of seaweed and their implications on the shrimp microbiome

Feeding trial

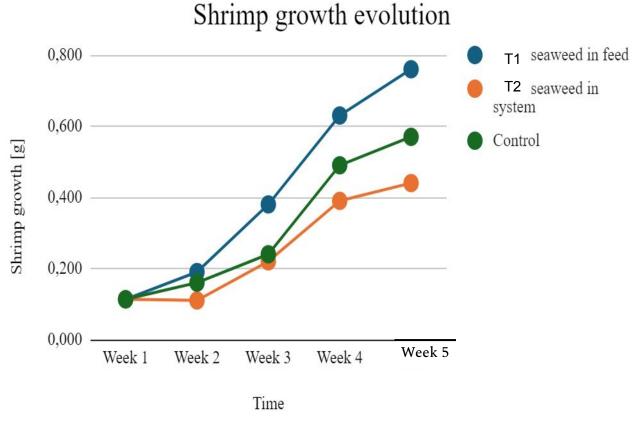






Results

Shrimp growth 0,800 0,600

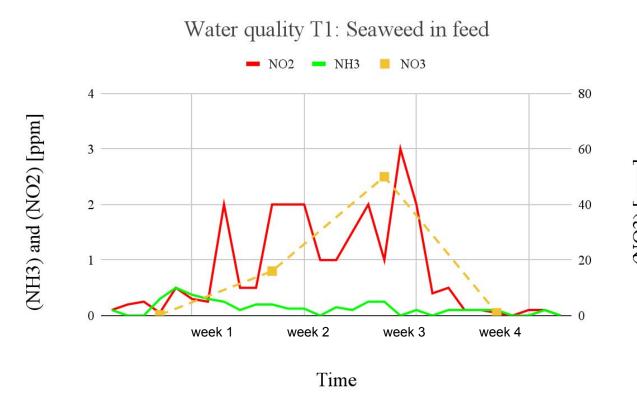


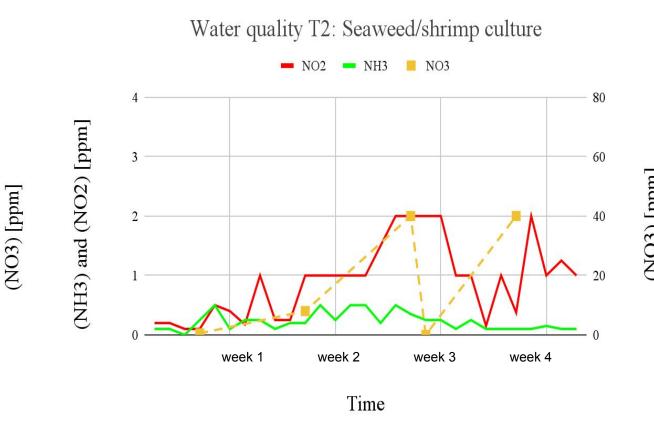
Shrimp survival @density of 1sh/3L

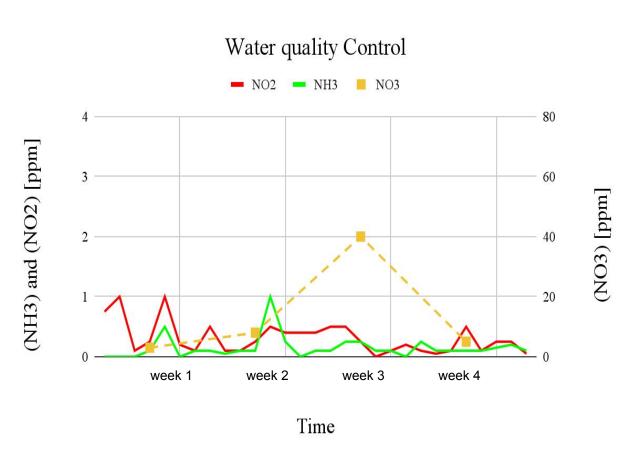
T2: seaweed/shrimp culture	100% survival	Counted end	Survival rate	
IMTA Tank 1	965	939	97.31%	
IMTA Tank 2	965	706	73.16%	÷
Average			85.23%	
T1: seaweed in feed	100% survival	Counted end	Survival rate	
Feed Tank 1	131	51	38.93%	
Feed Tank 2	131	50	37.31%	
Feed Tank 3	131	107	79.85%	
Feed Tank 4	131	60	45.80%	
Average			50.47%	



Water quality







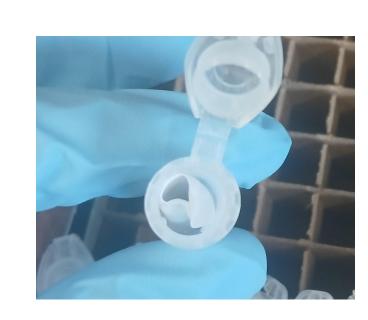
Following steps:

- → Analysis of microbiome modulation in shrimp (hepatopancreas and gut)
- → Analysis of culture water
- → Metagenomics and untargeted metabolomics using the BlueRemediomics Discovery Platform (aided by EMBL) and water analysis using MS to understand the exometabolome (Partners)
- → Further analysis of performance data (ZILT)

Hepatopancreas and gut dissection



Culture water sample collection



SOCIAL MEDIA









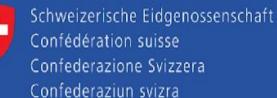
the European Union

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