

SHRIMP CULTURE IN BFT SYSTEM INTEGRATED TO OYSTER, TILAPIA AND RED DRUM

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Multi-trophic system

Introduction



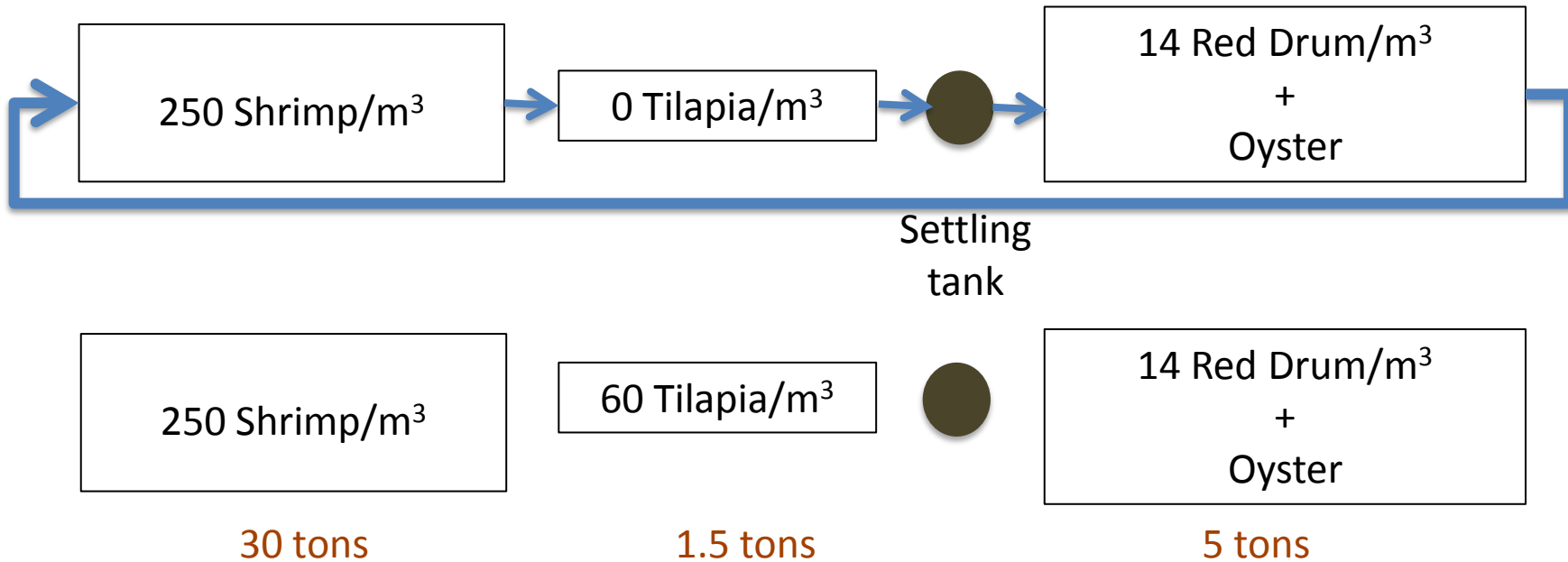
Advantages

- Produce Shrimp + Oyster + Fish
- Water quality / treatment
- Inland areas
- Reduce costs

Objectives

- Produce Shrimp + Oysters + Fish
- Zootechnical viability
- Role of Tilapia on the water quality

Exstructure

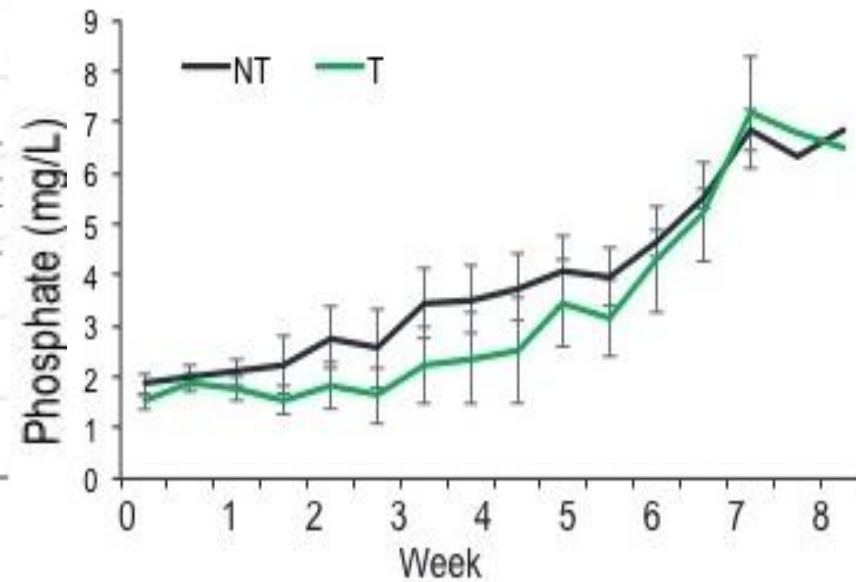
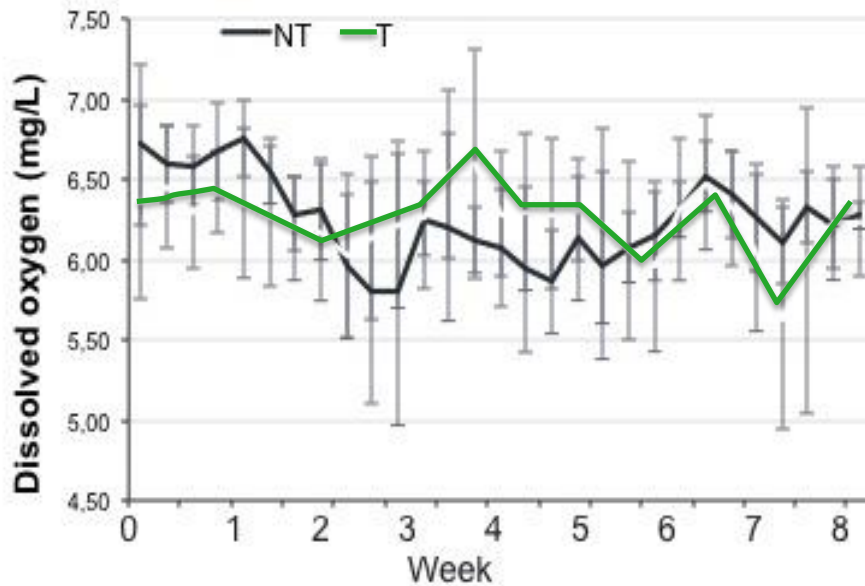
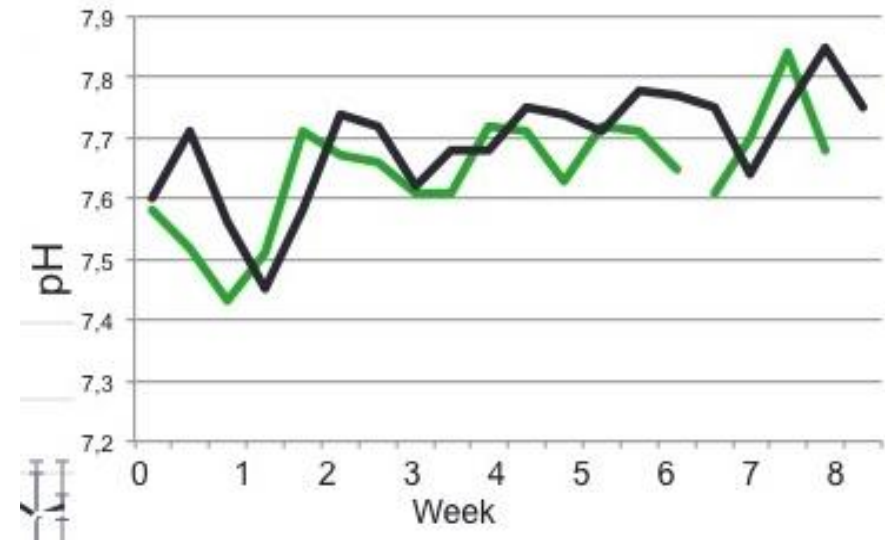
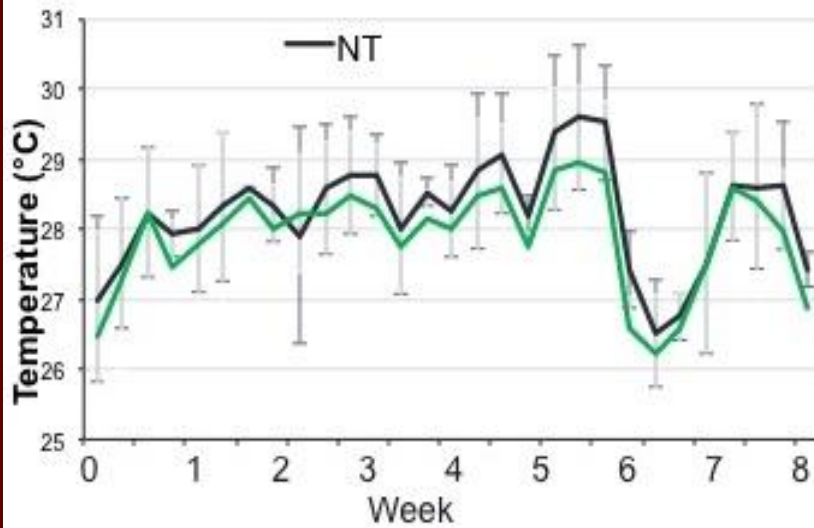


Management

- NO water change (dextrose)
- Salinity
- Water quality
- Settling tanks
- Biometry
- Feed 3 x day

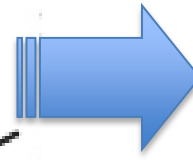
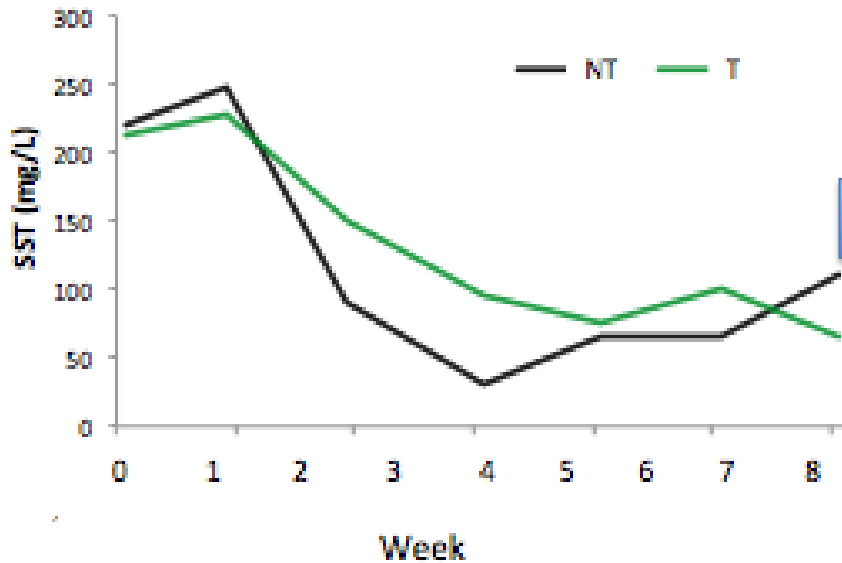
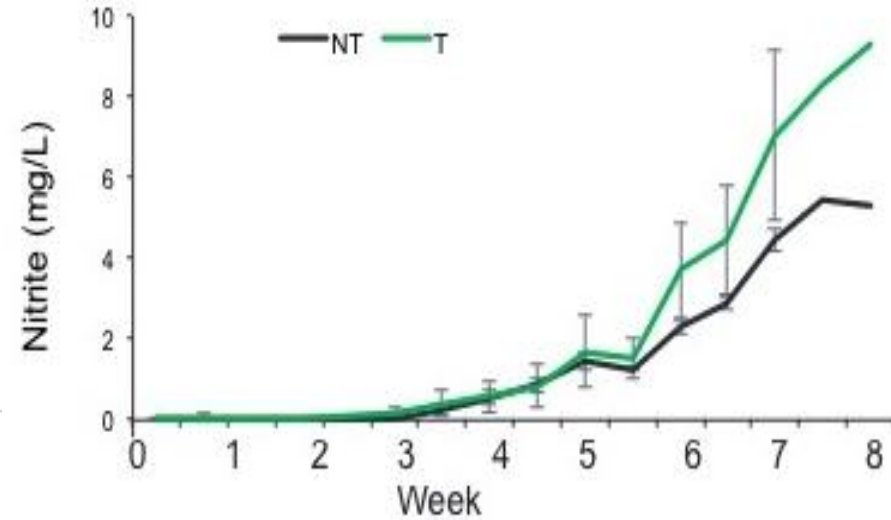
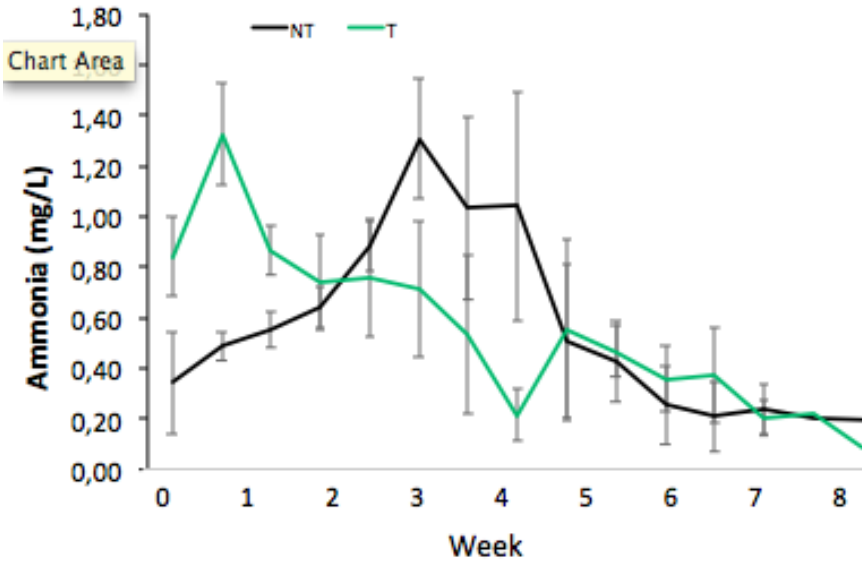


- Water quality



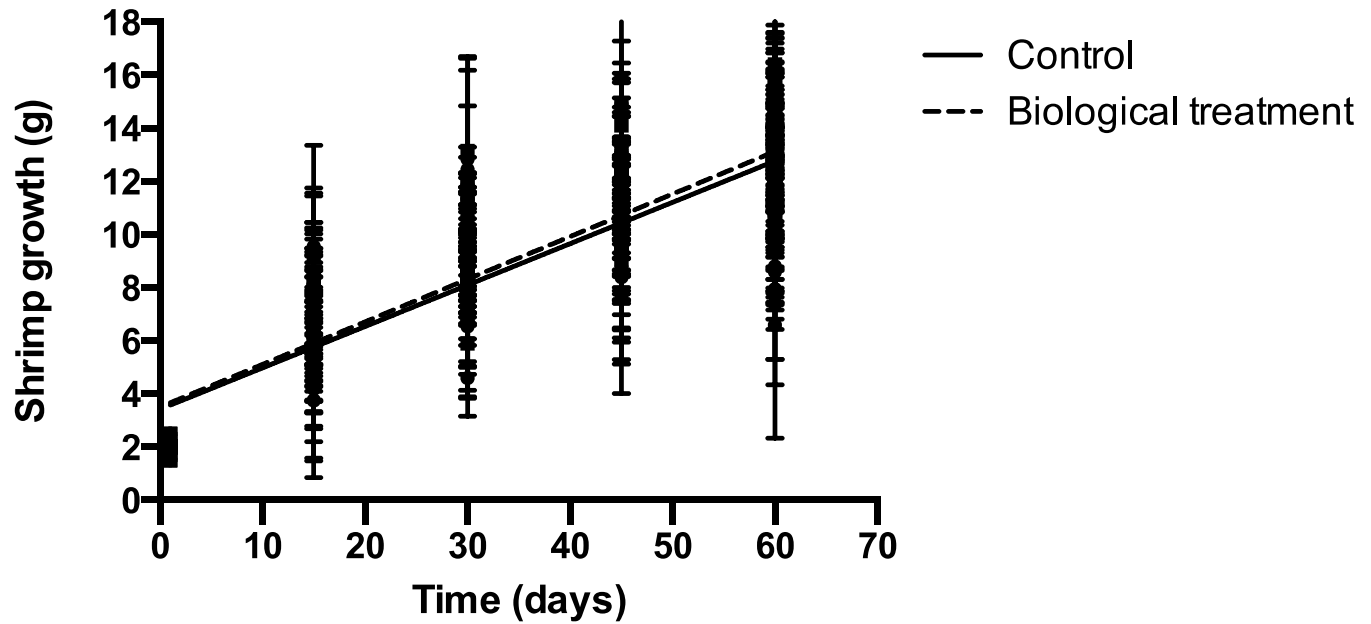
Results

- Water quality



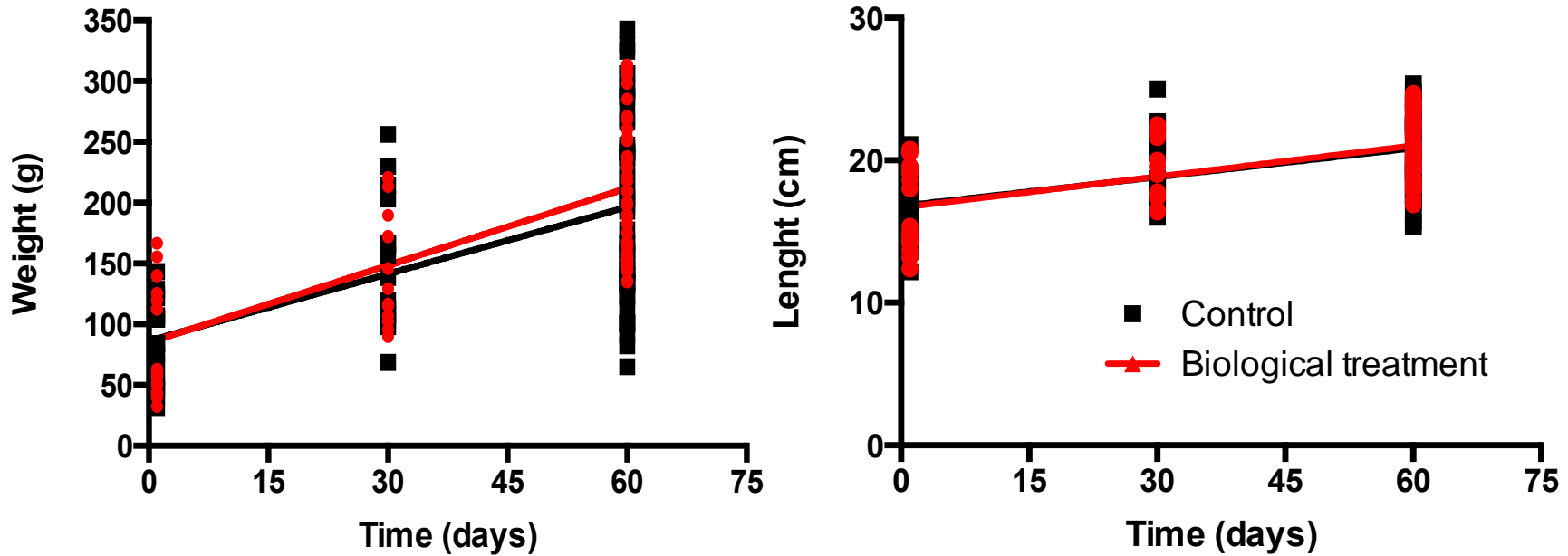
After harvest

- Shrimp growth



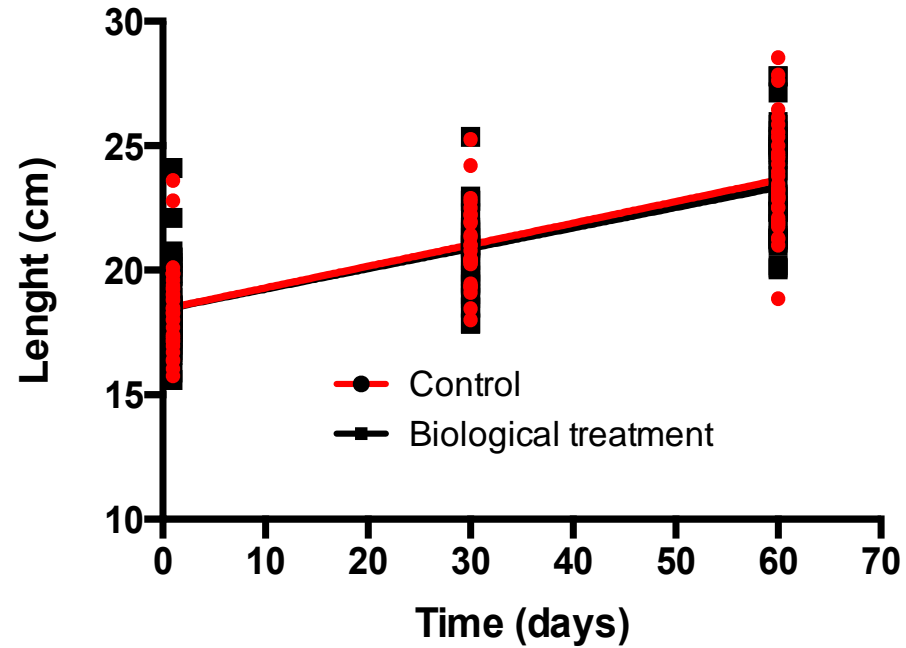
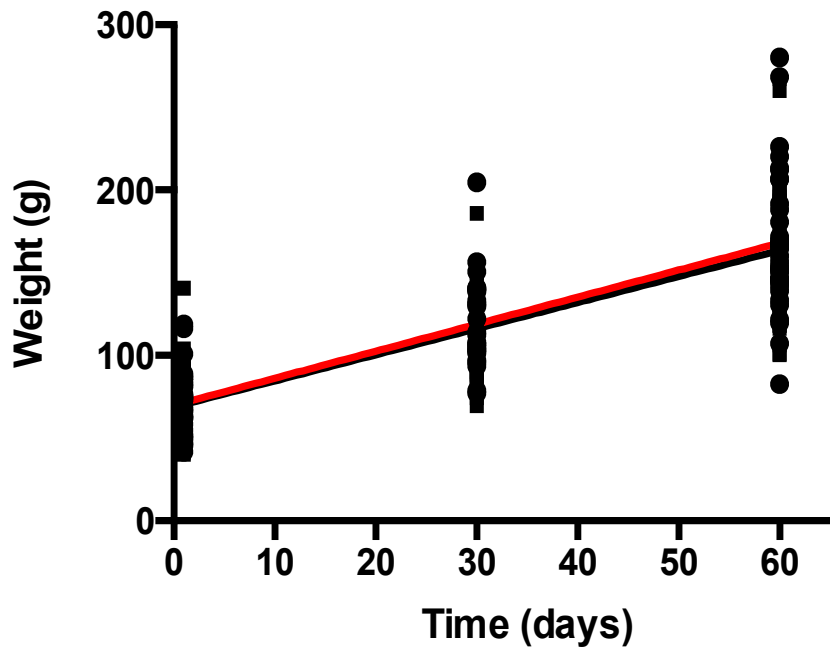
Tank	Initial weight (g)	Final weight (g)	Survival (%)	Growth/week	FCR
A	2.1	12.3	92	1.29	1.1
B	2.0	12.2	96	1.27	1.0
C	2.1	12.8	54	1.34	1.68
D	2.1	12.6	90	1.33	1.0

- Tilapia growth



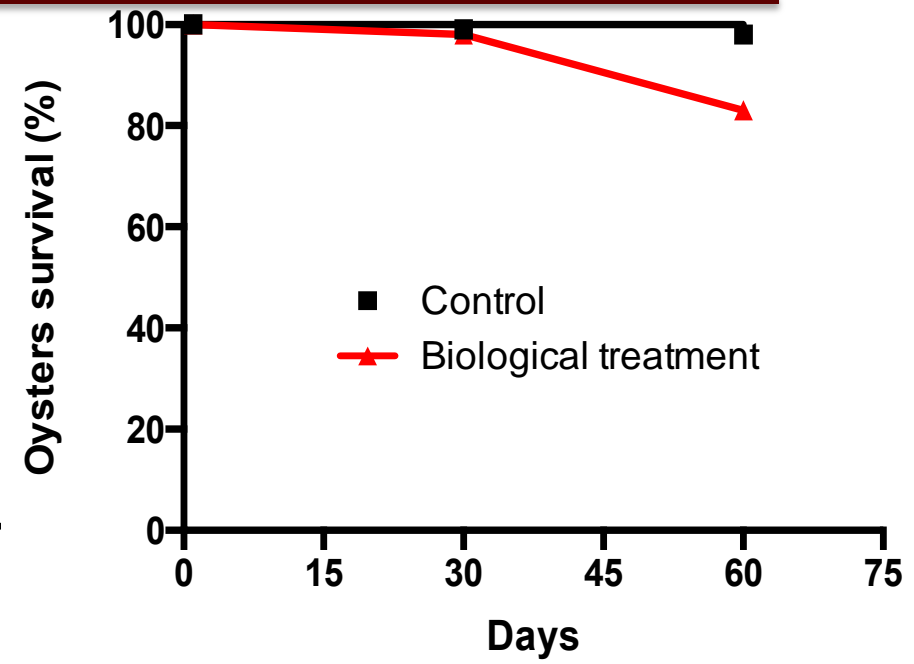
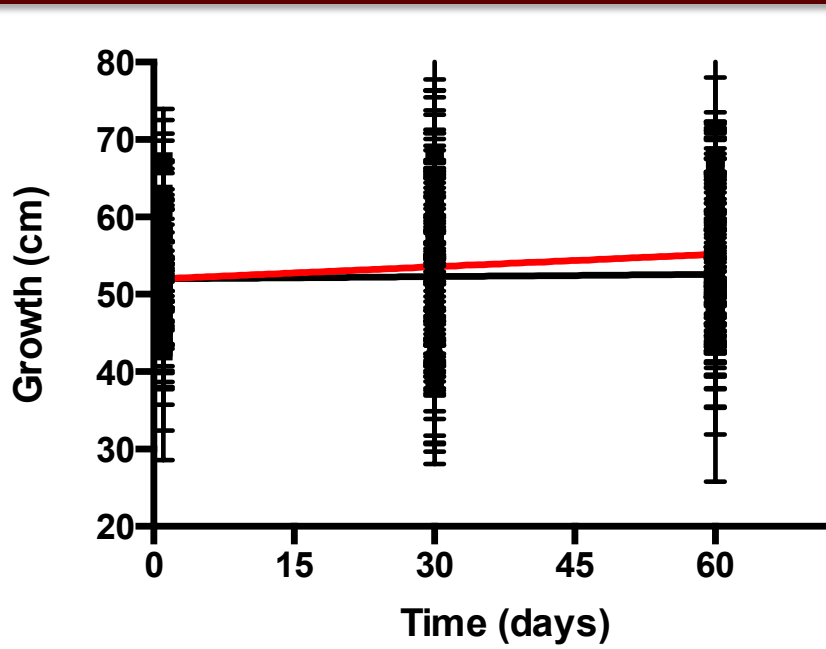
Tank	Initial weight (g)	Final weight (g)	Survival (%)	Growth/week (g)	FCR
A	-	-	-	-	-
B	-	-	-	-	-
C	86.39	211.92	100	15.69	0.87
D	84.12	199.00	100	14.36	0.82

- Red Drum growth



Tank	Initial weight (g)	Final weight (g)	Survival (%)	Growth/week (g)	FCR
A	72.50	170.23	99	12.22	1.01
B	69.37	174.03	97	13.08	0,94
C	71.13	158.78	99	10.95	1,10
D	71.64	179.31	99	13.46	0,90

- Oysters



- ❑ Is possible to integrate shrimp, tilapia, red drum and oyster in BFT system;
- ❑ Tilapia and oysters had no effects on the water quality (under these conditions);
- ❑ After 1 year is possible produce:
 - 4 shrimp cycles (12 g)
 - 2 tilapia cycles (500 g)
 - 1 red drum cycle (800 g)

Acknowledgment



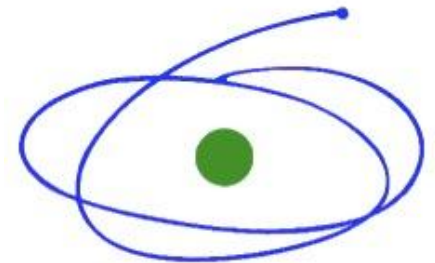
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