SOME INFORMATION ON A PRELIMINARY TEST OF REARING BELUGA (HUSO HUSO) IN RAS IN CROATIA

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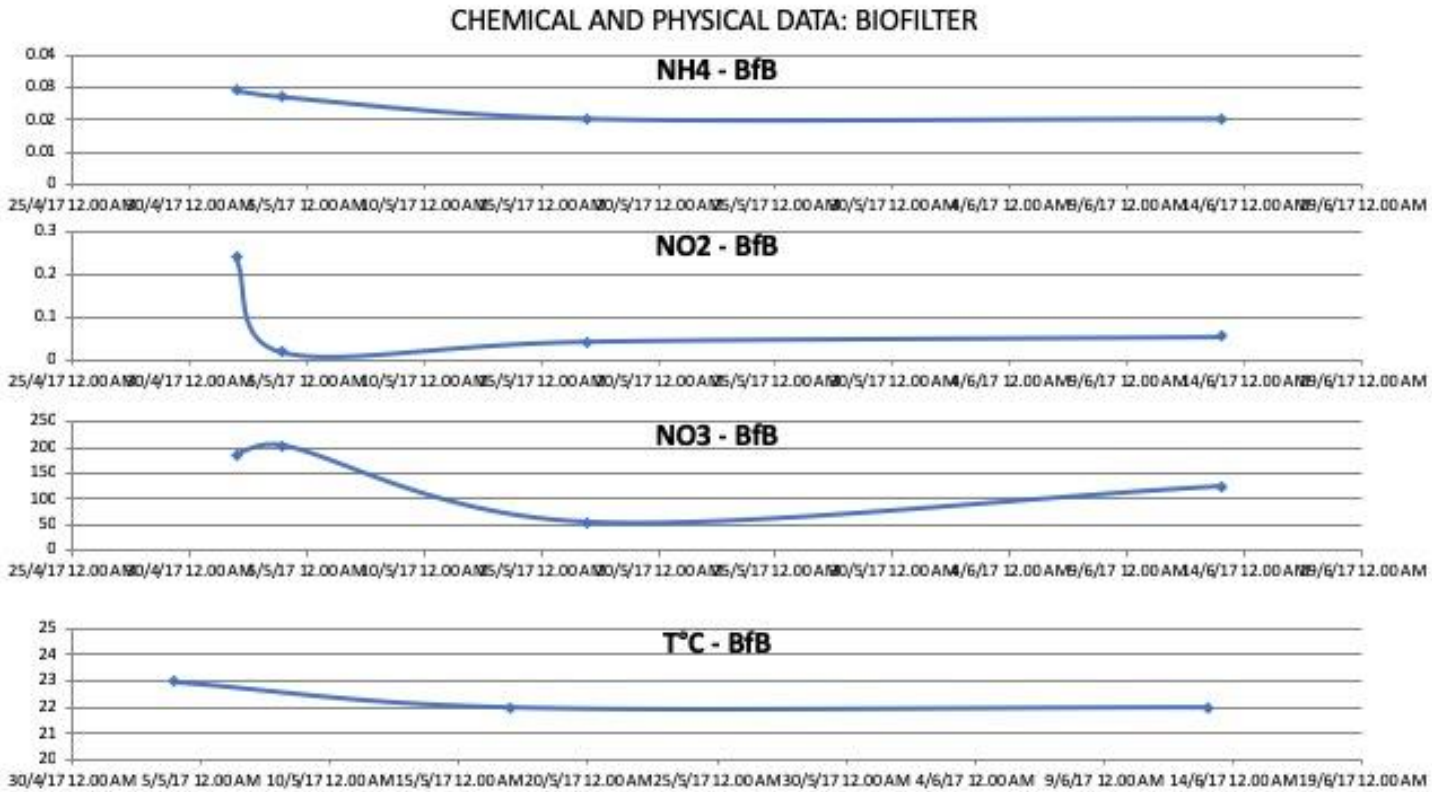
Pond surface: 1280 ha


Area RAS: 1,500 m2
Small pools: circular HDPE, 8 pcs of 2.7m3
Large pools: circular HDPE 16 pcs, 27.3 m3
Projected re-recirculation: 99.5%
Water adding: from underground wells


Large pools: circular HDPE 16 pcs, 27.3 m3
Small pools: circular HDPE, 8 pcs of 2.7m3

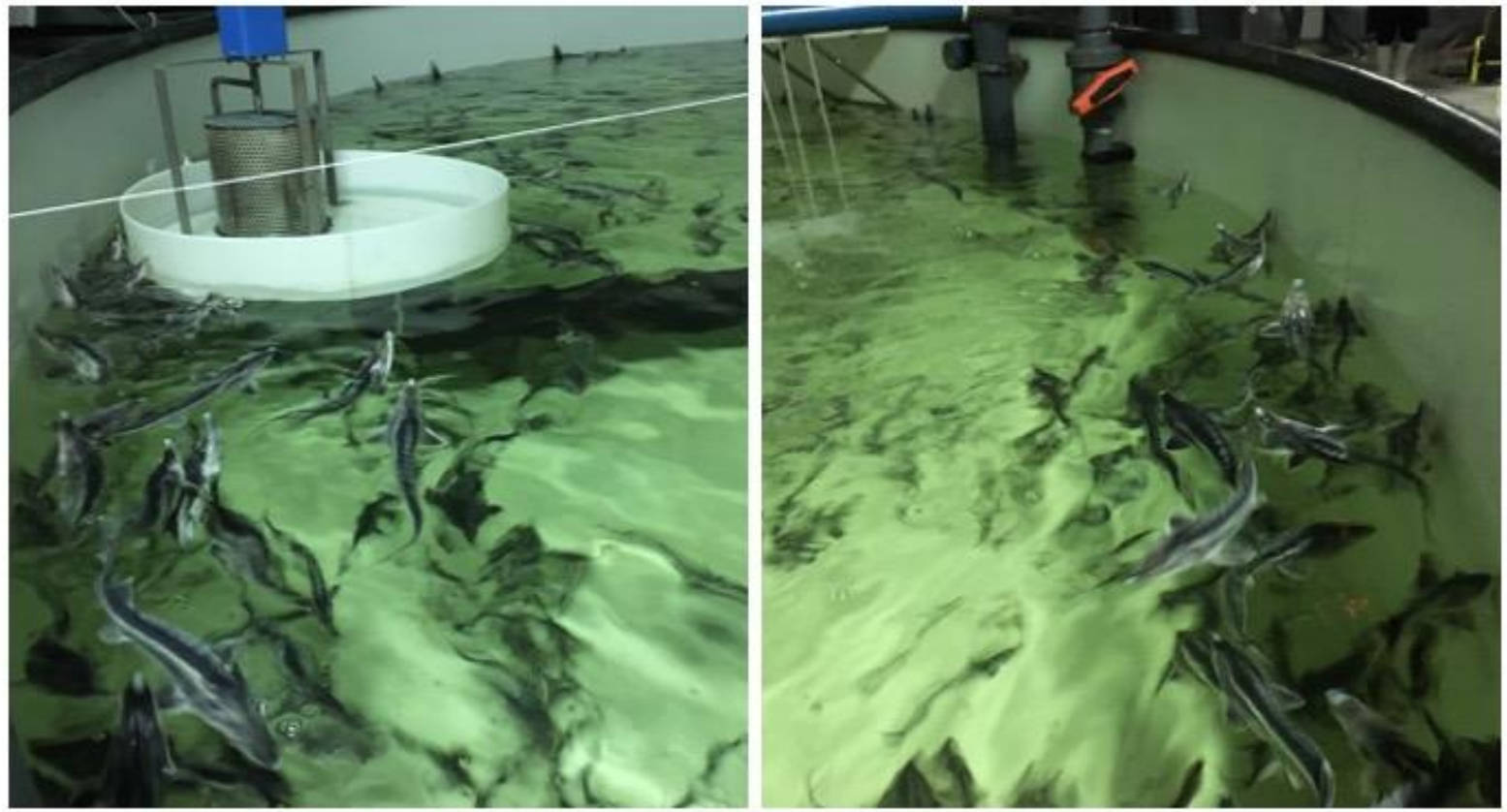

CHEMICAL AND PHYSICAL DATA: BIOFILTER
NH4 - BfB
NO2 - BfB
NO3 - BfB
T°C - BfB

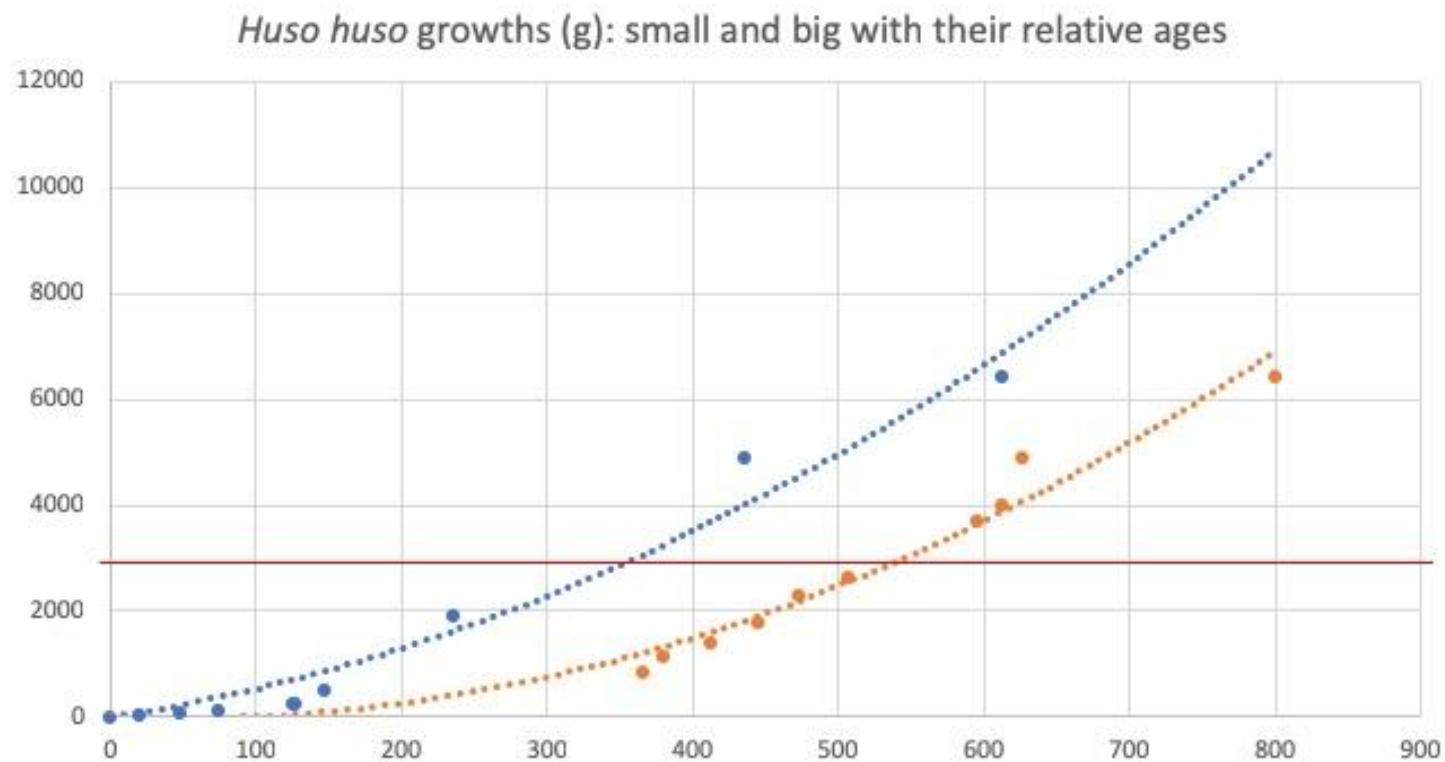
Rearing tank

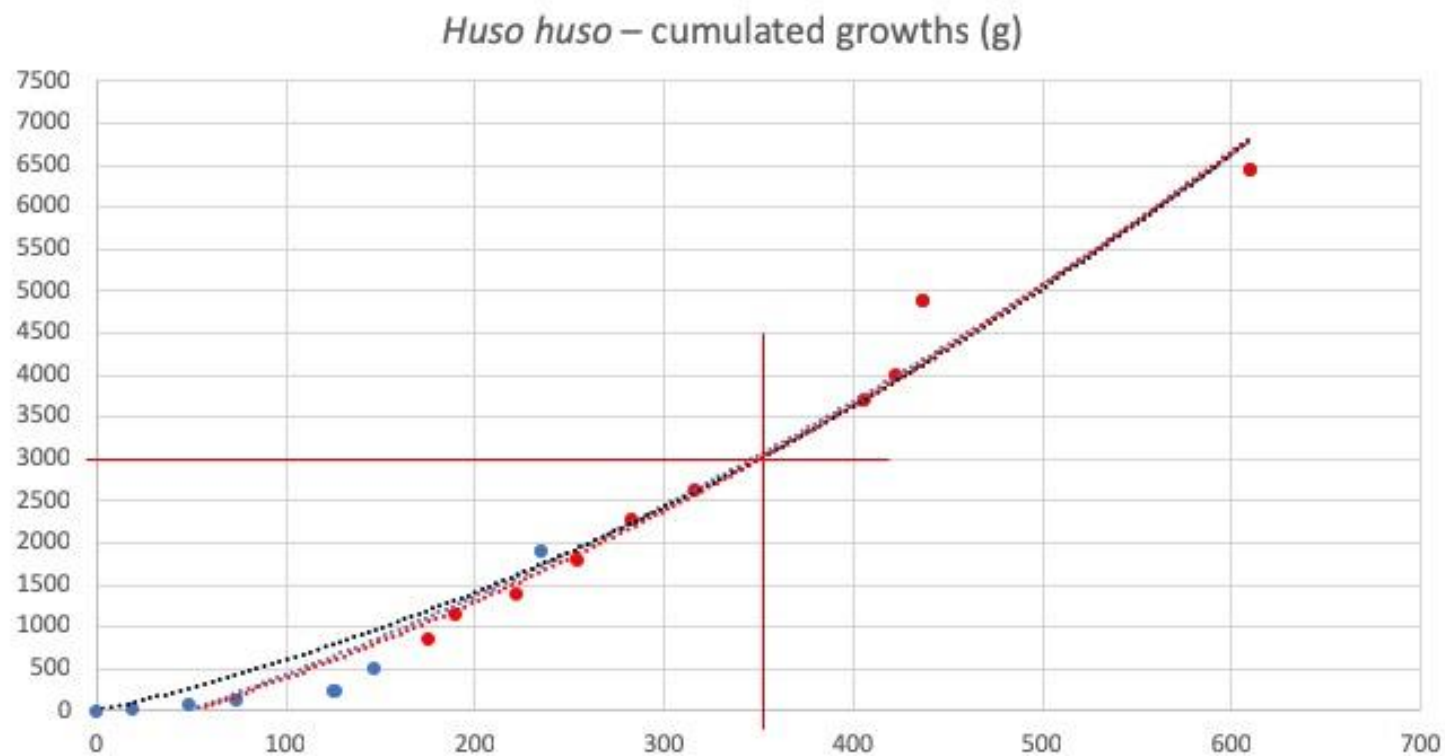
	pH	NH4	NO2	NO3	T°C
MIN	8.10	0.01	0.04	5.30	20.50
MED	8.25	0.14	0.78	35.24	23.33
MAX	8.51	0.33	2.00	157.20	24.00

MAIN PARAMETERS OF THE REARING TEST

- Start: 28/02/2017
- RAS system - small tanks: 2500 fingerlings (5-7g)
- RAS system - big tanks : 200 (850g)
- Feeding: commercial feed ad libitum (Aller Aqua, Naturalleva)
- MORTALITY:
- Transferred to external pond: ???
- Last biometry: ???




Huso huso growths (g): small and big with their relative ages
12000
10000
8000
6000
4000
2000
0
0
100
200
300
400
500
600
700
800
900


Huso huso – cumulated growths (g)
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
0
100
200
300
400
500
600
700

PROS

FISH:

- High resistance to chemicals
- Easy handling
- Active feeding
- Good conversion factor
- Fast growers
- No parasites/pathologies

RAS:

- Suitable tanks (small & big)
- Good T°C control
- Good O2 control

CONS

FISH:

- Fingerlings not easy to find
- Weaned fingerlings expensive
- Difficult larval weaning

RAS:

- Difficult to start
- Long time to stability
- Huge daily water renewal
- High energy consumption (pumps)
- Pipes embedded in the floor

CONCLUSIONS

FISH:

- Can reach the average weight of 3,000 g in 1 year
- No severe pathologies/parasites
- The name ("beluga") is a famous brand
- Need to:
  - evaluate true % of survival
  - net edible biomass after processing (fillets)
  - taste and consistency of the flesh
  - market acceptability (size, processing, taste)
  - economic evaluation of the whole process
  - Identify suitable price

RAS:

Must be improved/adapted according to identified gaps