IMPORTANCE OF DIETARY TAURINE AND SELENIUM ON GROWTH AND SURVIVAL OF ATLANTIC BLUEFIN TUNA *Thunnus thynnus* LARVAE

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One of the most important bottleneck in the farming of Atlantic bluefin tuna (ABT) is the growth and survival during the larval rearing phase, mainly related with the diet quality. For the last ten years the Spanish Institute of Oceanography (IEO) in Mazarrón (Murcia, SE Spain) has developed a technique for ABT larval rearing and juvenile production. Taurine and selenium are essential water soluble compounds in live preys and inert diets for ABT larvae and juveniles. To know the importance of dietary taurine and selenium on growth and survival of ABT larvae, two experiments have been carried out with different taurine (Exp1) and selenium (Selplex®) (Exp2) doses added to rotifers enriched with ALGAMAC 3050®. Both experiments were finished at 14 days post hatching. ABT fertilized eggs were collected from captive breeders spawning spontaneously in floating cages in the area. The eggs, transported to the IEO facilities, were quantified, cleaned, selected by buoyancy and distributed randomly in 1400 L fiber cylindrical glass tanks at a density of 10 ABT eggs per liter, whereas prey density was maintained at 5 rotifers per mL. Temperature ranges were: 24.0±0.5ºC and 26.0±0.5ºC for Exp1 and Exp2, respectively. Fig 1 shows the growth results in size for both experiments at 14 dph. Survival in both cases was close to 10% with no significant differences due to the different treatments. The lowest growth in size was observed in larvae fed dose 0 in both experiments

Standard length average (mm ± confidence intervals) in Exp1 and Exp2 at 14 dph. Letters indicate statistically significant differences (95%)