

Digestive Enzymes and Hormones in Gilthead Seabream Larvae (*Sparus aurata*) Fed *Artemia* Nauplii Enriched with Free Histidine

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Abstract

The digestive enzymes and hormones of gilthead seabream (*Sparus aurata*) larvae fed live prey (*Artemia* nauplii) enriched with free histidine were investigated for 16 days (from day 24 to day 40 after hatching). Larvae were sampled at 4-day intervals. The control group had significantly lower growth than the enriched group ($p < 0.05$). Trypsin activity was higher in the control ($p < 0.05$). Bombesin activity significantly differed between treatments, periods, and period x treatment interactions and the cholecystokinin level was significantly higher in the enriched groups ($p < 0.05$). Results indicate that *Artemia* nauplii can successfully be enriched with free histidine, bombesin and cholecystokinin activity can be stimulated by free histidine, and mechanisms controlling the adaptation of trypsin activity to the amount of dietary protein were not activated within the 40-day study period.