

**Histamine producing bacteria and biogenic amines in retail markets cultured fish  
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The present study was conducted to determine the presence of histamine producing bacteria in the examined samples of apparently healthy locally cultured *Tilapia nilotica* (*Oreochromis niloticus*) and *Sea bass* (*Dicentrarchus labrax*) (50 of each) which were randomly collected from the retail markets in Alexandria province. The samples were examined for aerobic plate count (APC) and histamine producing bacterial count (HPBC) in fish muscle. The obtained results revealed that the mean values of APC and HPBC (cfu /g) were  $3.2 \times 10^5 \pm 0.6 \times 10^5$  and  $2.7 \times 10^3 \pm 0.45 \times 10^3$  for *Tilapia nilotica*,  $5.3 \times 10^4 \pm 2.2 \times 10^4$  and  $2.5 \times 10^2 \pm 0.6 \times 10^2$  for *Sea bass*, respectively, as well as the incidence of isolated histidine decarboxylase bacteria isolates from cultured *Tilapia nilotica* and *Sea bass* was *Klebsiella* (4% and 2%); *Proteus* (8% and 6%); *Enterobacter* (6% and 4%) and *Morganella morganii* (4% and 2%), respectively. Analysis of biogenic amines (BAs) represented by histamine, spermine, cadaverine and putrescine by different methods using High Performance Liquid Chromatography (HPLC) and Enzyme Linked Immuno Sorbent Assay (ELISA). Higher results were observed with ELISA technique; so, the last method can be used correctly only for a simultaneous screening of many samples and needs HPLC confirmation.

**Keywords:** Histamine, bacteria, Fresh cultured fish, biogenic amines, HPLC, ELISA