In this study was investigated histological alteration associated with frozen baitfish feeding of cage-reared bluefin tuna (*Thunnus thynnus*) in the Gulf of Antalya in Turkey. For this purpose, liver, heart and skeletal muscle samples taken from wild (control) and cage-reared bluefin tuna (70 to 150 kg, n = 25) were examined by histologic methods. As a result of this study was observed vacuolation of the hepatocytes depending on the lipid accumulation in the liver parenchyma and lipid deposits in the cardiac and skeletal muscle tissues cells in cage-reared blue-fin tuna. Thus, negative affects of feeding with wet foods have high content of fat and protein in the health of cage-reared bluefin tuna were determined.

**Keywords:** Bluefin tuna, *Thunnus thynnus*, Frozen baitfish feeds, Lipidiozis, Liver