### **Abstract**

Diseases caused by the consumption of foods contaminated with microorganisms is the one of the common problems that still must be controlled enough. Diseases caused by the consumption of foods contaminated with microorganisms is a common problem that must be controlled enough. The sensory evaluation of common carp minced meat treated with different concentrations (%0, %2/5, %5, %7/5 and %10), water and ethanol extracts of pomegranate peel was performed. After determining the optimum concentration, water and ethanol extracts of minced meat inoculated with  $1 \times 10^3$ Cfu/g Escherichia coli, were added. The packaging treatment and during the test period at  $(4\pm1)^{\circ}$  C Refrigerators, were kept. Counting of bacteria on days 0, 1, 3, 6, 9 and 12 was conducted. The results showed that ethanol extract had a significant antibacterial activity and concentration of 20%, by eliminating the bacteria in the first 24 hours, and is the most effective concentrations of %10, %12/5, %15 fall into the next category. The aqueous extract antimicrobial activity is very weak and the duration of the experiment, the bacteria showed a rising trend. Pomegranate peel extract because of antibacterial property and protect it, can play an important role in ensuring food safety and consumer play.

**Keywords:** aqueous extract, shelf life, pomegranate peel, E. coli, sensory evaluation



# University of Zabol Faculty of Natural Resources Department of Fisheries The Thesis Submitted for the Degree of Master of Science (In the field of Fisheries)

# Subject:

Effects of aqueous and ethanolic extracts of pomegranate peel (Punica granatum) on the growth of inoculated Escherichiacoli in Cyprinus carpio minced meat.

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