



University of Zabol
Graduate school
Faculty of Natural Resources

**Sc.The Thesis Submitted for the Degree of M
Of Fish Product Processing**

**Effect of *Althaea officinalis* flower extract on the
quality of *Thunnus albacares* fillets during
storage at 4 ° C**

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Abstract

The aim of this study was to evaluate the effect of *Althaea officinalis* extract on the shelflife of *Thunnus albacares* fillets during storage at 4°C. Fillets were treated with 1, 2 and 4% concentrations of *Althaea officinalis* extract, then packed and stored in refrigerator. Chemical (PV, TVB-N and TBA), microbial parameters (TVC, PTC) and sensory analysis were measured on 0, 3, 6, 9, 12 and 15 days of storage. The results showed that the values of TVB-N, TBA and PV increased (P <0.05) significantly during storage but this increase was lower in *Althaea officinalis* extract treatments than control. The TVC and PTC amount of fillets with 4% concentrations of *Althaea officinalis* extract significantly (P <0.05) lower than other treatments. The sensory evaluation of treatments indicated that the treatments containing the *Althaea officinalis* extract had the highest acceptable. So that the treatment with 4% of *Althaea officinalis* extract increased the shelflife of *Thunnus albacares* fillet during storage (4°C).

Key words: *Althaea officinalis* extract, *Thunnus albacares*, Shelf life, Antioxidant