# **Titre d’article**: Combined impacts of oregano extract and vacuum packaging on the quality changes of frigate tuna muscles stored at 3±1°C

**Abstract :**

Aim: The combined effects of oregano extract with vacuum packing (VP) on the quality enhancement of dark and white muscles of frigate tuna (Auxis thazard) stored as intact fillet at refrigerated (3±1°C) conditions were studied. Materials and Methods: About 35 kg of fish were filleted without skin removal and randomly divided into two groups. One group without treatment (control) and the remaining group were dipped in a sterilized oregano extract solution for 5 min. Chemical, microbiological, sensorial, and textural analyses were carried out in each of dark and white muscles of frigate tuna fillets during storage. Results: Several quality indexes were higher in dark muscle than white muscle. The sensory assessment indicated that both muscles from control had a shelf life of 12 days. Quality parameters of both muscles had the same tendency and were significantly affected by time and also by the presence of plant extract in VP. Although VP alone was sufficient to delay lipid oxidation on fish fillets, especially on dark muscle but cannot enhance the textural deterioration in both muscles. Conclusion: Consequently, the employment of such combination had a cumulative effect on preservation, resulting in prolonging the shelf life of both frigate tuna muscles.