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**Thesis Title:** Detection of *Escherichia coli* based on *16srRNA* gene, virulence gene (*papC*) and quinolone resistance genes from ornamental bird feces samples in Tabriz region.

**Abstract:**

The care of companion animals is associated with positive impacts on individuals' quality of life, encompassing both physical and psychological benefits. However, this human-animal interaction may potentially lead to the transmission of various pathogens to owners, posing risks to public health. Ornamental birds can harbor certain pathogenic agents and transmit them to their human caretakers. *Escherichia coli* is a gram-negative bacillus belonging to the Enterobacteriaceae family, which inhabits the intestinal tract of a wide range of animals. These rod-shaped bacilli measure 2 to 4 micrometers in length and 1.1 to 1.5 micrometers in width, with rounded ends, and may appear singly or in pairs or short chains. A total of 109 fecal samples were collected from ornamental birds in pet shops across the Tabriz region. Sampling was conducted during the spring of 2023. Of the 109 samples collected from ornamental bird feces in Tabriz and identified for *E. coli* based on the *16S rRNA* gene, 25 samples tested positive for this bacterium. To investigate quinolone resistance, the plasmid-mediated *qnrA* gene was utilized. The results of this study indicated that 6 samples harbored the gene conferring antibiotic resistance to quinolones. Furthermore, upon examination for the virulence gene *papC*, it was determined that none of the *E. coli*-positive samples carried this virulence factor. In this study, the highest prevalence of *E. coli* contamination was observed in pigeons, with 12 positive samples.

**Keywords:** Ornamental birds, feces, *E. coli*, Virulence, antibiotic resistant