**Title:**  Evaluation and comparison of the frequency of *Salmonella* spp., *Campylobacter jejuni* and *Escherichia* *coli* in intestinal microbiota of *Galerida* *cristata*

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**Introduction**

As a wild ground-foraging bird, Crested lark (*Galerida cristata*) is widely distributed in Sistan area, located in the North of Sistan and Baluchistan Province, Iran. *Escherichia coli* (*E. coli*) and *Salmonella* spp. are known as the pathogenic organisms transmitted by wild birds, which can lead to food poisoning as well as zoonotic diseases. *Campylobacter jejuni* (*C. jejuni*) is known as a cause of acute diarrheal and Guillain-Barré syndrome in humans and can be use the some wild birds as a carrier. No study was found to investigate the prevalence of these bacteria in Crested lark. The present study was aimed to determine if the target wild bird species can be regarded as a medium to carry *C. jejuni*, *E. coli* and *Salmonella* spp. or not.

**Methods**

A total of 100 individual birds (Crested lark) were trapped alive in the Sistan, Iran. The cloacal swab samples were collected from each animal. By amplifying *Hyp* and *hip* genes, we screened the presence of *C. jejuni* in the sampled specimens. Moreover, the frequency of *E. coli* and *Salmonella* spp. were evaluated using conventional methods in cloacal samples of the target wild bird.

**Results**

The results indicated that generating an amplicon of 500 bp and 750 bp from control strain for *Hyp* and *hip* genes, but in all examined samples, no *C. jejuni* was detected. As a first microbiological investigation on Crested lark, our finding indicates that it likely plays no role in the epidemiology of infections caused by *C. jejuni*. Vast studies, with a variety of wild birds, and different geographical areas are proposed. The prevalence of *E. coli* and *Salmonella* spp. in the studied bird obtained 53% and 0%, respectively (p<0.05). The results indicated that in the study area, Crested lark is probably associated with zoonotic hazard and it also can be regarded as an origin of microbial contamination in the environment, including *E. coli* and probably *Salmonella* spp. It is recommended to carry out further studies on viable but nonculturable (VBNC) state, intermittently shedding and pathogenesis of *Salmonella* spp. in the Crested lark.