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Thesis Title: Identification of *Macrorhabdus ornithogaster* from parrot feces in Urmia by wet mount and molecular method.

Abstract:

This study aimed to identify *Macrorhabdus ornithogaster* in fecal samples from psittacine birds in Urmia using wet slide microscopy and molecular methods. A total of 100 fecal samples were collected from various psittacine birds in local bird shops. Samples were processed using wet mount microscopy and molecular techniques, including DNA extraction and PCR, followed by phylogenetic analysis. The wet mount evaluation detected M. ornithogaster in 11% of the samples, while the molecular assessment identified the yeast in 59% of the samples, indicating a significantly higher detection rate with the molecular method. The presence of *M. ornithogaster* in the gastrointestinal tracts of a substantial number of Seemingly healthy birds highlights the need for comprehensive diagnostic approaches, especially under stress conditions or in conjunction with other diseases. Among the species studied, cockatiels exhibited the highest infection rate in the molecular evaluation, suggesting the need for more frequent clinical monitoring of this species. The findings underscore the importance of utilizing molecular methods for accurate diagnosis and the necessity for further research on the factors influencing *M. ornithogaster* infection in psittacine birds.

Keywords: *Macrorhabdus ornithogaster*, feces, cockatiel, budgerigar, Urmia.