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FIRST MOLECULAR IDENTIFICATION OF ADULT HETEROPHYESHETEROPHYES AND HETEROPHYESDISPAR (DIGENEA: HETEROPHYIDAE) FROM KUWAITI STRAY CATS USING ITS2 SEQUENCE

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ABSTRACT

In September 2015, adult specimens of the trematodesHeterophyesheterophyes and Heterophyesdispar were obtained from two stray cats captured near the fish market of Kuwait City. The rDNA ITS2sequencing and subsequent phylogenetic analysis with other heterophyids in the GenBank showed a close relationship with adult H. heterophyes, and Heterophyes sp.-small metacercariae from Sardinia in addition to adult Korean heterophyesnocens. While it is clustered separately from Kuwaiti Heterophyidcercariae obtained from Cerithideacingulate snail and the Indian heterophyid.Due to the close relationships between these trematodes, it suggests that the origin of the Kuwaiti adult H.heterophyes and H. dispar could be from the imported Mediterranean Sea fish and not the local one.Mullet (Mugilidae) is the most probable second intermediate host for both trematodes. This was the first molecular characterization of adult H. heterophyes and adult H. dispar from the Middle East and the first one in the natural definitive host.

KEYWORDS: *Heterophyesdispar, Heterophyesheterophyes, ITS2 rDNA, Kuwait*

Article History

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