

## First Report of *Telorchis assula* (Digenea: Telorchidae) in Three Reptile Species from North of Iran

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**Abstract:** *Telorchis assula* is a trematode from the family Telorchidae. *Telorchis* (Luehe, 1899) species are intestinal parasites inhabiting fresh water turtles and occasionally snakes and salamanders. In our investigation 34 turtles of *Mauremys caspica caspica*, 13 grass snakes of *Natrix natrix* and 10 dice snakes of *Natrix tessellate* were investigated for the presence of *T. assula* in Mazandaran, north of Iran. It was observed that one *M. caspica caspica*, 11 *N. natrix* and 5 *N. tessellate* have been infected.

**Key words:** Reptile • Parasite • Helminth • Trematoda • Iran

### INTRODUCTION

*Telorchis* belongs to the Telorchidae family which are plagiorchiform intestinal parasites occurring worldwide. Taxonomic studies on *Telorchis* genus have shown that there are about 80 species in the world.

They are common inhabitants of freshwater turtles, occasionally snakes and salamanders. *Telorchis* species are characterized by having testis at the posterior end of the body and by possessing an ovary that is pretesticular and separated from the testis by extensive uterine coiling [1]. *T. corti*, *T. medius*, *T. diminutis*, *T. attwunatus*, *T. corti*, *T. medius*, *T. diminutis*, *T. attwunatus* are extracted from reptiles and amphibians [2]. Although a considerable number of reptile species such as snakes and turtles are present in the Iran ecosystems, there is not enough information about the helminth fauna of reptiles and their role in the transmission of veterinary and zoonotic diseases. Hence, this report describes the detection of *T. assula* from the gastrointestinal tract of reptiles in Iran.

**Case Report:** In the present study, the samples were collected from Mazandaran (36°33'56"N 53°03'32"E) province, North of Iran during 2011 to 2012: 43 turtles

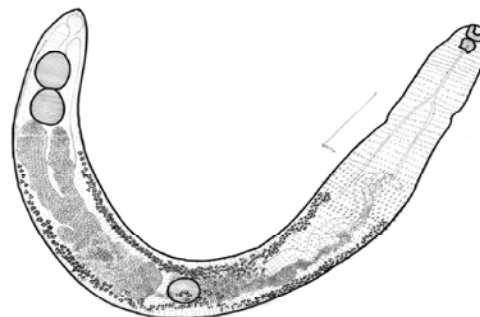


Fig. 1: The extracted *T. assula* from *N. natrix*, *N. tessellate* and *M. c. caspica*

(*M. c. caspica*), 23 snakes (13 *Natrix natrix* and 10 *Natrix tessellate*). All of the samples transported to the laboratory of Islamic Azad University, Babol-branch, Iran. During dissection and investigation of the digestive tracts for endo-parasites, 15 snakes and one turtle showed infection. The obtained helminths were fixed and preserved in 70% ethanol, stained with Carmin acid procedures, dehydrated, then cleared and mounted in Canada-balsam. The specimens were identified as *T. assula* (Fig. 1) considering all crucial morphometric and morphologic criteria based upon Yamaguti's systematic key [3].

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## DISCUSSION

A termatoda, *Ophiotaenia europaea* was reported from *N. natrix* in north of Iran [4]. In another study *T. assula* was observed from *N. tessellate* and *N. natrix* in turkey [5]. This termatoda also found in research from Belorussian water snakes [6]. An investigation on two reptiles, *Thamnophis eques* and *Thamnophis melanogaster* in Mesa central of Mexico, *T. corti* was extracted and shown the highest abundance [7]. In similar survey on helminthes fauna in some Iraqi reptiles, in 45 *M. c. caspica* (22 Male and 23 Female) *Telorchis stunkardi* were found [8]. Recently reptiles are receiving a great attention among pet owner and may be considered as exotic pet. Reptiles have a potential ability in transmission of viral, bacterial, protozoan and helminthic agents. Two significant parasitic zoonoses of reptiles and amphibians are pentastomiasis and sparganosis [9].

In conclusion, this noteworthy to mentioned that this is the first report of *T. assula* from *N. natrix*, *N. tessellate* and *M. c. caspica* in Iran. Further investigations are suggested to prepare enough information regarding reptiles and amphibians helminthic parasites in other areas of Iran.

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