

TICK INFESTATION OF HARES (*LEPUS CAPENSIS*) IN AL-QASIM DISTRICT- BABYLON, IRAQ

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Abstract :

The study was carried out in Al-Qasim district –Babylon province to evaluate the infestation of hare with hard tick ,where seven hunted hares examined for presence of hard tick. The results revealed that all examined hares were infested with 2 tick species ; *Rhipicephalus turanicus* and *Rhipicephalus leporis* with burden average 61.14 tick/ hare.

خمج القراد في الأرنب البري (*Lepus capensis*) في ناحية القاسم – محافظة بابل

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الخلاصة :

أجريت هذه الدراسة في ناحية القاسم /محافظة بابل لمعرفة خمج الأرنب البري بالقراد الصلب،حيث تم فحص سبعة أرانب تم صيدها في منطقة الدراسة. أظهرت النتائج إن كل الأرانب المفحوصة كانت مخمجة بنوعين من القراد الصلب هما *Rhipicephalus leporis* و *Rhipicephalus turanicus* وبمعدل 61.14 قراد / أرنب بري.

Introduction :

The hare is the most familiar game small mammals in Iraq ,its distributed among cultivated land with hedge of short bushes (1968, Harrison).Many studies indicate that hares serve as hosts to different genera of ticks((1987), Horak and Maclvor, (1993) Horak, et al., (1997), Talleklint and Jaenson), and act as potential role in epidemiology of group of diseases called tick borne diseases (TBD) ,which responsible for morbidity and mortality in man and animals (2001, Haerer, et al.).The aim of present study is spotlighting on acariasis in hares in Al-qasim district –Babylon province.

Materials and methods

Seven hares were hunted in cultivated village western to Al-Qasim district , during July 2011, the hunting area was opened land cultivated with alfalfa , with some short bushes especially in uncultivated areas.

Collection and preservation of tick:

Immediately after hunting ,the hare corpses placed in separated plastic containers and submitted to laboratory of veterinary parasitology /college of veterinary medicine /university of Babylon .Each hare was weighted and the body score assessed according to (2008, Cardinli, et al.), many ticks were collected by tweezers with made sure no catitulum leaving in the hare corpse .The picked ticks placed in mixture of 70% ethanol with several drops of glycerin while the rest of ticks were combed out on white rug soaked with cypermethrine ,then all dropped tick were counted and burned .The specimens were identified steromicroscopically according to (1982, Soulsby),then confirmed in Iraq Natural History Museum /University of Baghdad.

Results :

All collected hares were infested with hard tick in various stages of lifecycle ,some of ticks were engorged with blood to several times bigger than its normal size. The average rate of number of tick per hare was 61.14 % ,the numbers of ticks were recorded from each hares was mentioned in table (1).Only two species of *Rhipicephalus* were identified , *Rhipicephalud turanicus* and *Rhipicephalus leporis* , figure (1) .The majority of infested ticks were found on head (external ears ,around eyes and chin) while little numbers were observed to parasitized on other parts of body mainly the perineal region ,back and belly ,figures 2 and 3.

Table (1): reveal the numbers of collected tick in relation to sex and body score

Hare	sex	Body score	No. ticks	Species of ticks
1	Male	Fair	27	<i>R. turanicus</i> <i>R. leporis</i>
2	Male	Bad	63	<i>R. turanicus</i>
3	Female	Bad	78	<i>R. turanicus</i> <i>R. leporis</i>
4	Male	Fair	24	<i>R. turanicus</i>
5	Male	Fair	13	<i>R. turanicus</i>
6	Male	Bad	52	<i>R. turanicus</i>
7	Female	Very bad	171	<i>R. turanicus</i> <i>R. Leporis</i>



Figure 1: reveal the microscopic appearance of *Rhipicephalus turanicus*



Figure 2: reveal the engorged tick parasitized on head of hare



Figure 3 :reveal various size of ticks attached around eye of hare

Discussion:

Although ,the hare is one of most popular game in the world, its considered as a potential source of zoonotic agents in its home range (2003, Deutz, et al.). The epizotiological importance of the hare based on its ability to transmitted the infectious agents to man ,domestic and wild animals mainly by ectoparasites (2007, Triml, et al.). These facts are supported by the results of present study, the observed two species of genus *Rhipicephalus* (*R. turanicus* and *R. leporis*) were recorded by previous studies in Iraq from red fox (2003, Mohammad, et al.) ,jungle cat (2008, Mohammad) and sheep (2011, Mohammad and Jassim). Also this genus accused for as reservoir for many lethal disease like Crimean Congo hemorrhagic fever and visceral leishmaniasis (2005, Coutinho, et al.). According to conservation aspect, the obvious emaciation which in examined hares was in agreement with observation of (2011, Decors, et al.) whose suggested that ticks may cause high mortality in hare or arthropods borne diseases like tularaemia. There were no references about attraction of *Rhipicephalus spp.* to specific gender of hare. Internationally the identified tick genus were recorded by many authors in Saudi Arabia (2007, AL-Khalifa, et al.) ,Italy (2011, Dantas-Torres, et al.) ,china (2011, Zheng, et al.), Iran (2010, Salim, et al.), Mexico (1999, Cruz-Vazquez and Garcia-Vazquez) and Pakistan (2012, Hasan, et al.).

Acknowledgments:

Great appreciation to Al-Rafidin association for hunting and protection of environment for their kind supporting of this study and also to the staff of Iraq Natural History Museum, University of Baghdad for their kindly collaboration by identification of specimens.

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