

# Diagnostically study of the Digestive system Helminthes platyrhyncho's platyrhynchos L. in Baghdad and Kut District, IRAQ.\*

A.N.Jassim \*

I.A.Al-Kubttan \*\*

A.J.Mahmoud \*\*\*

Date of acceptance 21/12/2002

## Summary

A total of 247 specimens of the Mallard (*Anas platyrhynchos platyrhynchos*) were collected from Baghdad City and Kut City (93 and 154 specimens, respectively). The collection was started from October 1999 to September 2000. The aim of this study was to know the endoparasitic Helminthes in the digestive system of Mallard. The following parasites were observed:-

### 1. Trematoda :-

*Hypoderaum conoideum* (Bloch, 1782) Dietz, 1909

### 2. Cestoda :-

*Diorchis stefanskii* Czap, 1956

*Hymenolepis mastigopradiata* Polk, 1942

*Sobolevicanthus gracilis* ( Zeder, 1803 ) Spasskey et Spasskey, 1954

*Fambbiraria fasciolaris* Pallas, 1781

### 3. Nematoda :-

*Amidostomum acutum* Zeder, 1800

These species were recorded for the first time in Iraq, except *F. fasciolaris* and *H. Conoideum*.

## Introduction

Ducks are the important source of meat and eggs in Iraq. Intestinal hel-

minthes adversely influence the successful rearing of poultry as they are

\* Dr- Biology Dept.-College of Science for Women- University of Baghdad

\*\* Dr.-Pathology Dept.-College of Medicin- University of Baghdad

\*\*\* Part of M.SC. Thesis

the chief cause of unthriftiness leading to emaciation and decreased egg production (Laballastiere, 1995, Jacob et al., 2001). Knowledge of the identity of the parasites harbored is essential to formulate an effective and control programmes against them. Parasite infecting Duck (Mallard) have reviewed by many workers (Kishor & Sharma, 1991; Kinsella et. al. 1994; Zuchowsha, 1997; Dalimi & Mobedi, 1998) but little is known about the parasites of the domestic duck in Iraq (Al-Maya, 1994; Mahmoud, 2001).

### Materials and Methods

The host materials were the domestic duck *Anas platyrhynchos platyrhynchos* (order Anseriformes) adult. They were obtained from various locations in Baghdad and Kut City during October 1999 to September 2000. The total number of the ducks examined was 247. The proventriculus, gizzard, small intestine, caecum, large intestine and cloaca were separated, opened, and each placed with contents into a labelled bottle containing water. The liver was sectioned, teased and examined, and the gall bladder was opened and examined macroscopically and under a dissecting microscope. The trematodes and Cestodes were washed thoroughly, and stained with modified carmine and mounted in Canada balsam (Rahife, 1998). The nematodes were washed from the tissue and fixed and cleared in Lactophenol. Classification was based on Yamaguti (1958; 1959; 1961) and Confirmed by the American Natural History Museum.

### Results

The numbers of infected ducks, percentage of infection, mean intensity of infection and standard error are shown in Table 1.

The following parasites were recovered:-

#### 1. Cestodes

The rate of infection with cestodes was higher than with nematodes or trematodes (Table 1). The recovered cestodes were:

#### ***Diorchis stefanskii* Czap, 1956 (Cestoda, Hymenolepidae) (Figs. 1):**

Was recovered from the small and large intestine. The infection ranged between 2-9 worms/host with a percentage of infection 1.82% in Baghdad ducks, 3-156 worms/host with a percentage of infection 67.53% for Kut ducks. The length of the worm ranged from 184 to 435 with an average (308.9)mm, the maximum width in the region of the gravid segment ranged 4.6 to 11.6 with an average (8.54)mm, Scolex diameter 1.5-3.9 (2.62) mm, rostellar hooks 0.5-0.6 with an average (0.5)mm in one circle, Sucker diameter 0.8-1.3 with an average (1.1)mm, number of testes 3, number of ovary 1, genital pore in the middle of lateral edge of proglottid.

#### ***Hymenolepis mastigopradiata* Polk, 1942 (Cestoda, Hymenolepidae) (Fig.2) :**

Was recovered from the small and large intestine. The infection ranged between 3-16 worms/host with a percentage of infection 8.27% in Baghdad ducks and 57 worms/host with a percentage of infection 40.90% in Kut ducks. The length of the worm ranged from 54 to 87 with an average (67.3)mm, a maximum width in the region of the gravid segment was 4.2 to 9.4 with an average (6.9)mm, number of testes 3, number of ovary 1, genital pore in the middle of lateral edge of proglottid.