Lecturer : Nerran K.F.AL- Rubaey Practical parasites Lab - 13 -

# TREMATODES

## **Blood Species :**

- 1- Schistosoma mansoni : Common Name (Manson's Blood Fluke) Causes Intestinal Schistosomiasis.
- 2- Schistosoma japonicum :Common Name (Blood Fluke) Causes Intestinal Schistosomiasis.
- 3- Schistosoma haematobium : Common Name (Bladder Fluke) Causes Urinary Schistosomiasis.

#### Eggs :

The average *Schistosoma* eggs is comprised of developed miracidium, these eggs are oval in shape and the presence of lateral or terminal spines distinguishes the egg of one species from the other species.

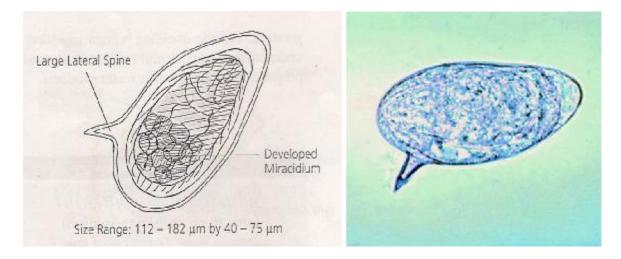


Figure (1-1): Egg of *Schistosoma mansoni* \*It's have large lateral spine and developed miracidium.

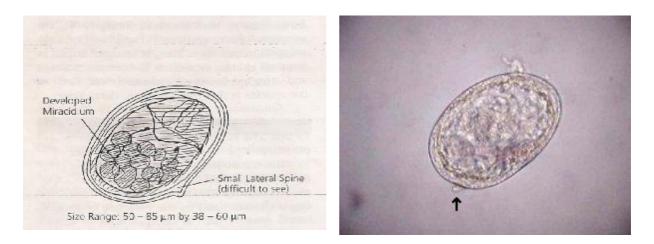


Figure (1-2): Egg of *Schistosoma japonicum* \*It<sup>,</sup> s have small lateral spine and developed miracidium.

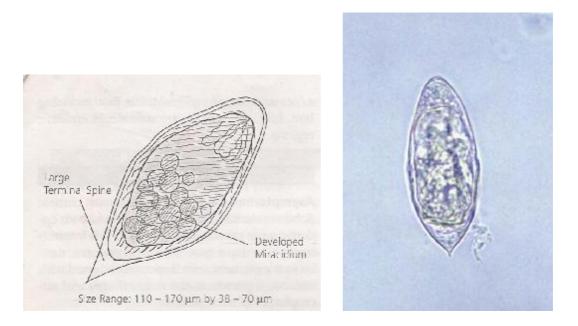


Figure (1-3): Egg of *Schistosoma haematobium* \*It's have large terminal spine and developed miracidium.

<u>Adults</u> : The adults of *Schistosoma sp*.are the only trematodes that have separate sexes . Unlike the other adult trematode , the Schistosomes are rounder in appearance .

Although the typical female measures 2 cm in length and the male measures 1.5 cm in length , the male has the capability to almost completely surround the female during copulation .

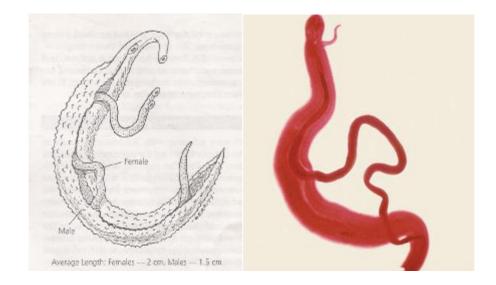
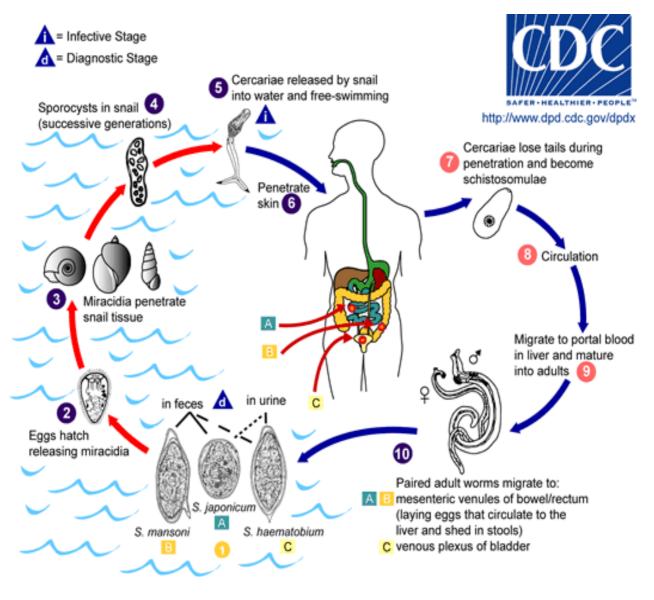


Figure (1-4): Schistosomes in copula.

# (The Life cycle of Schistosoma sp.)



#### <u>Notes</u>

\*Diagnostic stage is :egg

- \* Infective stage is : cercaria
- \* Final host is : human
- \* Intermediate is : snail

## Table (1): Differentiation between Schistosoma sp.

Properties	Schistosoma mansoni	Schistosoma japonicum	Schistosoma haematobium
1- natural habitat	Adult live in vein of large intestine	Adult live in vein of small intestine	Adult live in vein of urinary bladder
2- male (No. of tests)	6 - 9	7	4 - 5
3- Female (Situation of ovary)	Near the anterior end	In the middle	Near the posterior end
4- Length of uterus	Short	medium	medium
5- Shape of eggs	Oval , with large lateral spine	Oval to rounded, with small lateral spine	Oval , with large terminal spine
6- Lab. Diagnosis	Fecal examination	Fecal examination	Urine examination
7- Disease name	Intestinal Schistosomiasis	Intestinal Schistosomiasis	Urinary Schistosomiasis