

EXPERIMENT 10

OBJECTIVE

To study the life cycle of a mosquito.

MATERIALS REQUIRED

- (i) Chart showing the life cycle of a mosquito
- (ii) Museum specimen of stages in the life cycle
- (iii) Permanent slides
- (iv) Compound microscope.

THEORY

Life cycle of a mosquito passes through several stages. Each stage is morphologically distinct. Even their habitat differs with the adult being aerial and the earlier stages being aquatic. Though there are many species of mosquitoes, their life cycles, more or less, exhibit common features.

PROCEDURE

1. Observe the chart carefully and note the different stages in the life cycle.
2. Recall/discuss the characteristics of each stage.
3. Draw diagrams of all the stages.
4. Observe the preserved specimen and name the stages.
5. Go to field visit and take for various stages of life cycle of mosquito is stagnant water.

OBSERVATION

On careful observation we note that,

The mosquito goes through four distinct stages during its life cycle (Fig. 10.1) :

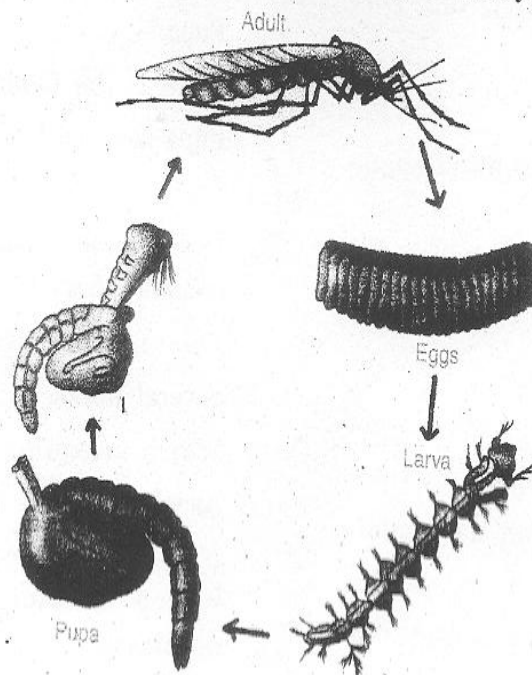


Fig. 10.1. Stages in the life cycle of a mosquito.

- (i) egg : deposited in water; hatches in water;
- (ii) larva (plural; larvae) : lives on the surface of water; moults several times;
- (iii) pupa (plural; pupae) : A stage just prior to the adult stage; pupae do not feed; and
- (iv) adult emerges from the pupae, body parts harden and starts flying.

PRECAUTION

1. Always go to field trip in company of your teacher.
2. Never step in to the water body.
3. Wear full sleeve clothes during a visit to stagnant water as a mosquito bite may cause diseases like dengue, malaria, etc.

VIVA-VOCE

Q. 1. Name any two diseases caused by mosquito bite.

Ans. (i) Dengue
(ii) Malaria.

Q. 2. What is the causative agent of malaria ?

Ans. Plasmodium vivax.

Q. 3. In which class of animals does plasmodium belong ?

Ans. Protozoa.

Q. 4. In which class of animals does the mosquito belong ?

Ans. Arthropoda.

Q. 5. Due to bite of which mosquito Dengue occurs.

Ans. Aedes.

Q. 6. Blood sucker mosquito are only females. True or False.

Ans. True.

Q. 7. What do you mean by sanguivorous.

Ans. Blood suckers are known as sanguivorous.

Q. 8. What is the food of male mosquito ?

Ans. Nectar of flowers or other sugary juices.

Q. 9. Where does mosquito deposit their eggs ?

Ans. Stagnant water.

Q. 10. After what time interval larvae hatch out from eggs ?

Ans. Within a few hours.

Q. 11. What is the breathing organ of larvae of mosquito ?

Ans. Specialised siphon tube.

Q. 12. Larval stage in mosquito is followed by.

Ans. Pupa.

Q. 13. What is the food of pupa ?

Ans. Pupa does not feed.

Q. 14. What is metamorphosis ?

Ans. Development of adult from pupa is called metamorphosis.

Q. 15. What is life span of adult mosquito ?

Ans. Several weeks.

Q. 16. Which mosquito causes malaria ?

Ans. Anopheles.

Q. 17. Name a popular medicinal tree from which medicine of malaria is obtained.

Ans. Cinchona.

MULTIPLE CHOICE QUESTIONS

1. During its life cycle a mosquito undergoes :

(a) four distinct stages	(b) three distinct stages
(c) five distinct stages	(d) none of these
2. Stages of life cycle of mosquito are :

(a) Pupa, larva, egg and adult	(b) Larva, egg and adult
(c) Egg and adult	(d) Adult
3. Which one of the following is not a stage in the life cycle of mosquito :

(a) Pupa	(b) Larva
(c) Egg	(d) None of these
4. Which one is a proper sequence of stages in life cycle of mosquito :

(a) Adult → egg → larva → pupa	(b) Adult → egg → pupa → larva
(c) Adult → pupa → larva → egg	(d) Adult → larva → egg → pupa
5. Which of the following stages does not feed :

(a) Adult	(b) Larva
(c) Pupa	(d) None of these
6. Which one of the stages metamorphose into adult :

(a) Egg	(b) Larvae
(c) Pupa	(d) None of these
7. Changes which occur during the development of adult from pupa are called as :

(a) metamorphosis	(b) isomerisation
(c) adulteration	(d) somersaulting
8. Mosquito (Adult) are mainly :

(a) aquatic	(b) terrestrial
(c) aerial	(d) none of these
9. Malaria is caused due to the :

(a) Plasmodium vivax	(b) Leishmania
(c) Trypanosoma	(d) None of these
10. Larva of mosquito lives :

(a) under the surface of water	(b) on the surface of water
(c) on decaying material	(d) none of these
11. What is the vector of plasmodium ?

(a) Female anophelex	(b) Male anophelex
(c) Female culex	(d) Male culex
12. Dengue is a :

(a) Viral disease	(b) Bacterial disease
(c) Protozoa disease	(d) None of these

13. Malaria caused due to a :
(a) Virus
(c) Protozoa
(b) Bacteria
(d) Fungi
14. What is difference in larva and larvae ?
(a) larva is male and larvae is female
(c) larva is singular and larvae is plural
(b) larva is female and larvae is male
(d) none of these
15. Medicine of malaria is obtained from :
(a) Cinchona
(c) Sandal
(b) Parthenium
(d) All of these
16. Which one causes malaria ?
(a) pupa
(c) egg
(b) larva
(d) none of these
17. Which one has a life cycle almost similar to mosquito :
(a) honey bee
(c) silk worm
(b) house fly
(d) all of these

Answers

1. (a)	2. (a)	3. (d)	4. (a)	5. (c)	6. (c)
7. (a)	8. (c)	9. (a)	10. (b)	11. (a)	12. (a)
13. (c)	14. (c)	15. (a)	16. (d)	17. (d)	

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