***Animal Diversity, 8e* (Hickman)**

**Chapter 12 Smaller Ecdysozoans**

1) "If all the matter in the universe except the \_\_\_\_\_\_\_\_ were swept away, our world would still be dimly recognizable, and if, as disembodied spirits, we could then investigate it, we should find its mountains, hills, vales, rivers, lakes, and oceans represented by a film of \_\_\_\_\_\_\_\_. The location of towns would be decipherable, since for every massing of human beings there would be a corresponding massing of certain \_\_\_\_\_\_\_\_. Trees would still stand in ghostly rows representing our streets and highways. The location of the various plants and animals would still be decipherable, and, had we sufficient knowledge, in many cases even their species could be determined by an examination of their erstwhile \_\_\_\_\_\_\_\_ parasites." The missing term in this passage is

A) flatworms

B) bacteria

C) nematodes

D) rotifers

E) protozoans

Answer: C

4) Which of these parasites does NOT enter the mouth of its human host and leave as eggs with the human feces?

A) Tapeworm

B) Hookworm

C) Pinworm

D) *Ascaris*

Answer: B

7) If you are discovered to have an infection of *Ascaris* worms, your most likely danger is

A) anemia.

B) destruction of tissues as it migrates through your body.

C) blockage of the intestines.

D) starvation from lack of nutrition because it is absorbing all your food.

Answer: C

8) If the main disease symptom is anemia (low red blood cell count), the most likely nematode parasite is

A) *Trichinella.*

B) *Ascaris.*

C) pinworm.

D) elephantiasis.

E) hookworm.

Answer: E

9) The name "hookworms" is due to the fact they

A) cluster in blood vessels in the liver and clog the veins.

B) burrow constantly through muscle tissues.

C) hook onto the intestine and consume blood and tissue fluids causing anemia.

D) clog the lymph glands and expand the legs and arms.

E) have an anterior end that curves dorsally like a hook.

Answer: E

13) Dogs commonly suffer from heartworm caused by

A) *Dirofilaria* nematodes.

B) a tapeworm consumed in raw meat.

C) eating raw meat infected with *Trichinella.*

D) nematodes consumed as eggs in contaminated water.

Answer: A

14) Elephantiasis is an enlargement of legs, arms, scrotum, and other tissues caused by

A) an infection of the human coelom by *Ascaris.*

B) a large number of *Trichinella* worms encysting in our muscles.

C) contracting a disease that usually occurs in elephants.

D) nematodes that reproduce and clog the lymphatic system which causes the limbs to swell.

E) a protozoan that lives in tropical roundworms and which, when ingested by humans, causes muscles to bloat.

Answer: D

15) Elephantiasis is transferred by

A) eating uncooked elephant meat.

B) worms burrowing into skin of feet.

C) drinking contaminated water or food.

D) mosquitoes injecting larval worms into the bloodstream.

E) exchanging body fluids with an infected person.

Answer: D

18) Nematomorphs

A) are called spiny-headed worms.

B) are free-living as adults but parasitic on arthropods as juveniles.

C) are found in the host's liver.

D) are free-living as adults but parasitic on vertebrates as juveniles.

Answer: B

23) The outer body covering of a nematode is a relatively thick, noncellular cuticle, which is constructed primarily of a protein known as \_\_\_\_\_\_\_\_.

Answer: collagen

24) Nematodes have a fluid-filled pseudocoel that serves as a \_\_\_\_\_\_\_\_ skeleton.

Answer: hydrostatic

25) Nematodes use the \_\_\_\_\_\_\_\_ to antagonize the longitudinal muscles in lieu of the nonexistent circular muscles.

Answer: pseudocoel

27) Adult Ascaris worms are found in the host's \_\_\_\_\_\_\_\_.

Answer: intestines

28) The infective stage of Ascaris is the \_\_\_\_\_\_\_\_, which is resistant to adverse conditions.

Answer: egg

32) Filarial worms (*Wuchereria* and *Brugia*) are transmitted by \_\_\_\_\_\_\_\_.

Answer: mosquitoes

36) Onychophorans are also known as \_\_\_\_\_\_\_\_ or walking worms.

Answer: Velvet

37) Describe the life cycle of a *Trichinella* worm.

Answer: Answers will vary.

43) Explain why the Tardigrada and Onychophora are grouped with Arthropoda in the clade Panarthropoda.

44) Members of phylum Nematomorpha are free living as adults after a juvenile stage that is parasitic to arthropods. Prior to hatching from a terrestrial arthropod host they force the host to seek water so that upon hatching there is a source of water.

Answer: TRUE

46) Which statements provided below correctly identify members of phylum Tardigrada?

A) Members of phylum Tardigrada are aquatic and cannot survive in terrestrial environments.

B) Members of phylum Tardigrada are microscopic, are unable to swim, and "walk" along vegetation with their clawed legs.

C) Members of phylum Tardigrada will molt and have a non-chitinous cuticle.

D) Members of phylum Tardigrada have an unusual feature termed crytobiosis where their metabolic rates are greatly amplified to allow for rapid reproduction under changing environmental conditions.

Answer: B, C