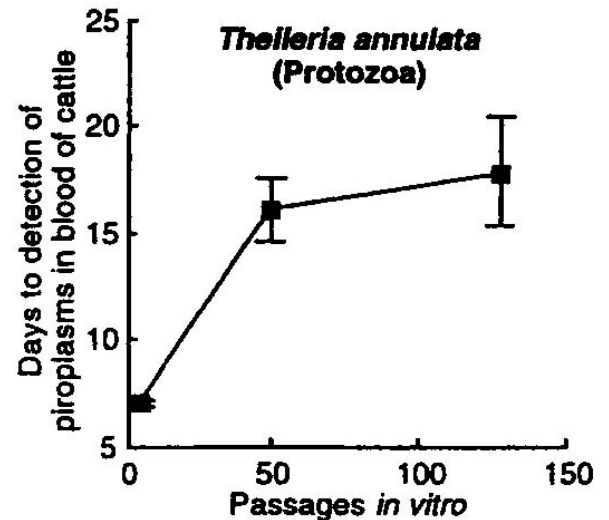


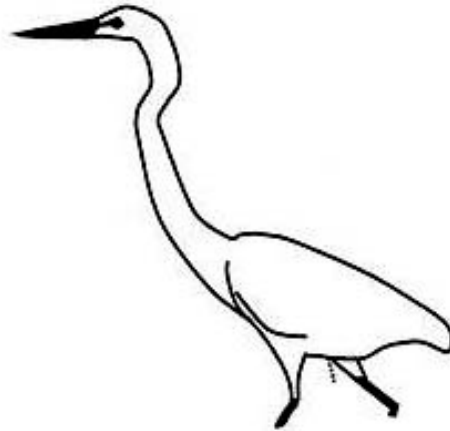
2 In my introduction, I facetiously argued that parasites were “victims of a bad press” and gave a number of “pro-parasite” arguments. My serious message was that parasites were often overlooked. Briefly summarize 2 arguments for why parasites are worthy of study. (6 points)

3. The illustration to the right was discussed in the lecture concerning the evolutionary factors affecting the virulence of parasites. Interpret the data in the figure, in other words, explain what happened. Be sure to explain what is meant by “Passages *in vitro*” and whether parasite became more or less virulent over time? (6 points)



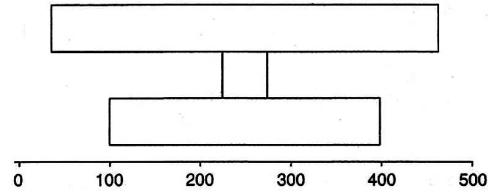
4. The following is an excerpt from a newspaper story discussed in lecture. Identify the Phylum (2 points), Class (2 points) & genus (2 points) of the parasite (6 points total)
 SANTA ANA, Calif. (AP) -- Two more diners came down with a rare lung infection after eating raw...freshwater crabs that were served at two Orange County bars...The tiny Japanese river crabs can carry a parasite that migrates from the intestines to the lungs, causing lung fluke infection... [Restaurant owner] Dan Lauriano...said...crabs...were eaten live by diners who started a "Fear Factor" style tradition in which they would reach into the sushi bar and devour live seafood as friends cheer[ed] them on.

5. Diagram the life-cycle of a type of parasite that would use ALL the hosts in the figure below. Identify the type of parasite (common name is satisfactory), the names of and locations of all possible larval stages (both free-living and parasitic). Be sure to include the tissues or organs occupied by the parasitic stages. (20 points)

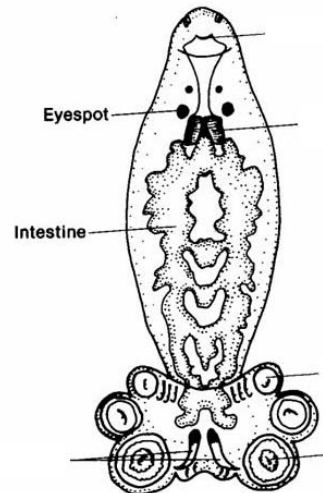


Short Answer (20 points on this page)

5. What do the bars represent in the figure to the right? The figure was used in lecture to illustrate what concept? (4 points)



- 6a. The organism illustrated in the diagram to the right is a member of what group? (2 points)

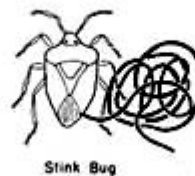


- 6b. Does the organism have a complete digestive system? (2 points)

7. Give the common name for two diseases caused by filarial worms. (3 points each)
- a. _____ b. _____

8. Suppose your sister traveled to Mexico and Central America on a prolonged missionary trip and started having seizures after her return to the United States. You ask her if she ate food from street vendors and she replied, "All the time." What species of parasitic worm would you likely suspect to be the cause of her symptoms? (2 points)

9. What group of worms is illustrated in the figure to the right? (2 points)



10. What is the name of the infective stage of hookworms? (2 points)
11. Match each phrase listed on left below with the most accurate phrase on the right. Consider

the parasite to be in the adult stage unless it is indicated otherwise. Answers may be used once. (1 point each; 24 points total)

- | | | | |
|-------|---|-----|--|
| _____ | <i>Toxocara</i> health problem | A. | Dog tapeworm |
| _____ | <i>Diphyllobothrium</i> adult | B. | Biggest nematode in human gut |
| _____ | <i>Necator</i> | C. | Unusual for group; they are dioecious |
| _____ | <i>Trichinella spiralis</i> cyst | D. | Acquired by eating cysts on vegetation |
| _____ | Stage in life-cycle of a nematode | E. | Whip worm |
| _____ | <i>Gyrodactylus</i> | F. | Causes human to walk into water |
| _____ | <i>Fasciola hepatica</i> | G. | Inside chamber of heart |
| _____ | <i>Dirofilaria immitis</i> | H. | Groove |
| _____ | Pearl fish in sea cucumber | I. | Turtles & mollusks |
| _____ | <i>Schistosoma</i> adults | J. | Reservoir host |
| _____ | <i>Schistosoma</i> cercariae | K. | Strobila can be 3-10 meters long |
| _____ | <i>Dipylidium</i> | L. | "Measly" beef |
| _____ | <i>Ascaris</i> | M. | Chinese liver fluke |
| _____ | Vitellaria | N. | A "nurse cell" provides nourishment |
| _____ | <i>Trichuris trichiura</i> | O. | Fish louse |
| _____ | <i>Taenia saginata</i> | P. | J ₂ |
| _____ | <i>Enterobius</i> | Q. | Hydatidosis |
| _____ | Bothrium | R. | Hypobiosis |
| _____ | Developmental arrest | S. | "swimmers' itch" |
| _____ | <i>Strongyloides</i> | T. | Yolk gland |
| _____ | <i>Echinococcus</i> larva | U. | Salivary gland |
| _____ | <i>Dracunculus</i> | V. | Mutualism |
| _____ | <i>Clonorchis</i> | W. | Phoresy |
| _____ | Algae in cells of corals
and giant clams | X. | Inquilinism |
| | | Y. | Embryos have embryos |
| | | Z. | Burrow into peoples' feet |
| | | AA. | Itchy butt |
| | | BB. | Visceral larval migrans |
| | | CC. | Homogonic cycle |