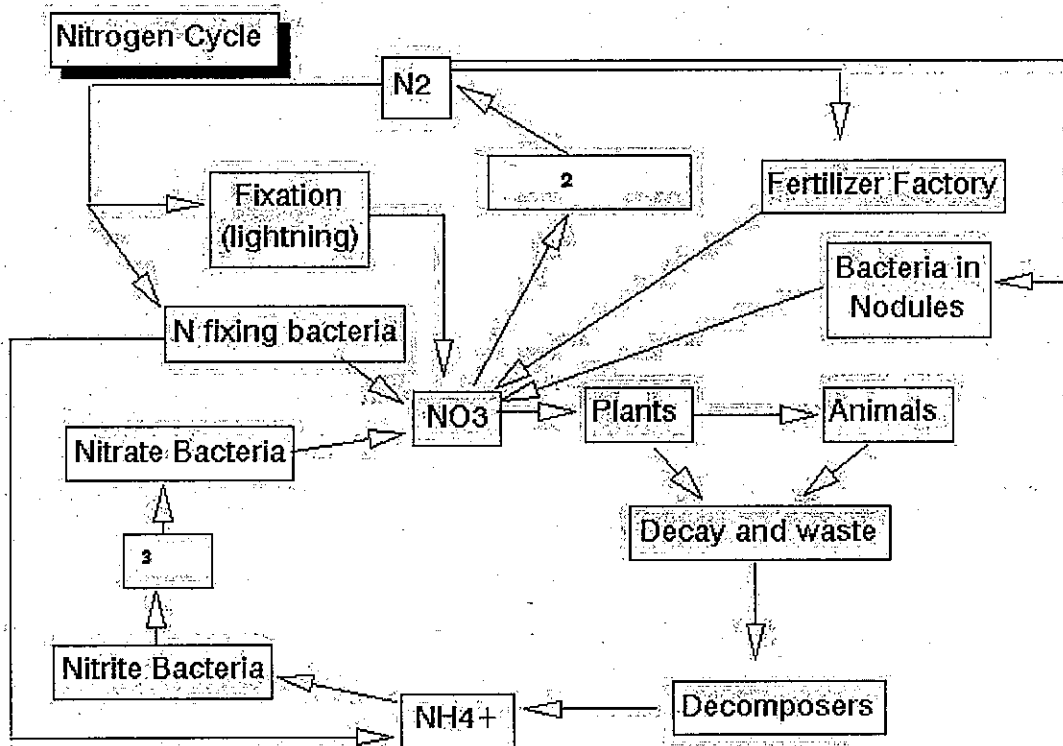


Water Quality Division C

Albany Invitational January 7th, 2012

1. A climax community:
 - a. has a population larger than what the environment can support.
 - b. always starts with primary succession.
 - c. is not a stage of ecological succession.
 - d. is a community in which the populations are in equilibrium with one another and the environment.

2-3. Fill in the missing squares in the chart below:



4. _____ streams are known as headwater.
 - a. First Order
 - b. First and Second Order
 - c. First, Second and Third Order
 - d. First, Second, Third and Fourth Order
- 5-9. List the steps of potable water treatment.

10. What organization sets standards for water quality based on the Safe Water Drinking Act?

- a. EPA
- b. US Government
- c. State Government
- d. Community Committees

11-13 (Tie-breaker) The three steps to set primary drinking water standards are:

14. Variability in light penetration through a lake divides the lake into what two zones?

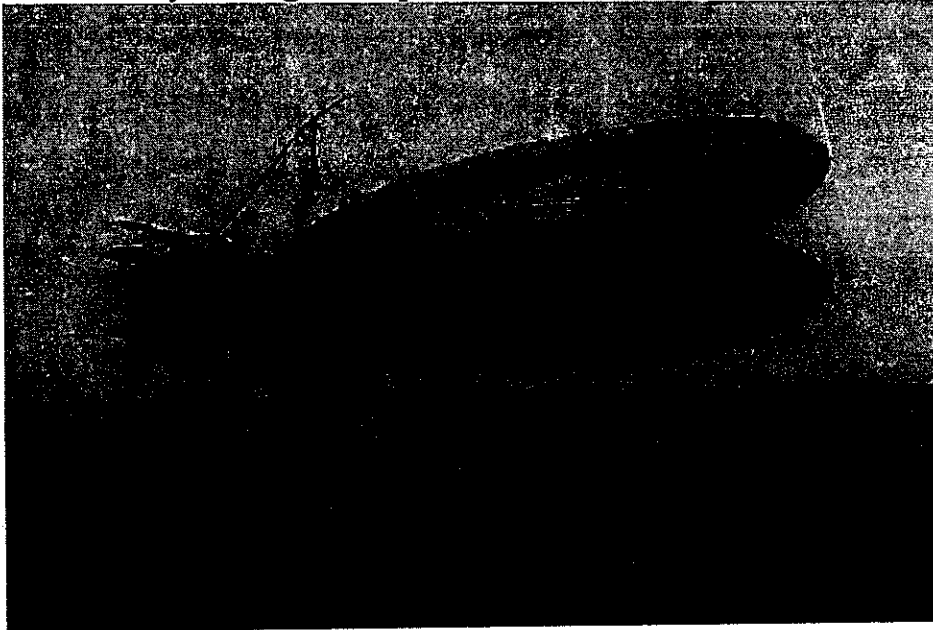
- a. biotic and abiotic
- b. deep and shallow
- c. photic and aphotic
- d. eutrophic and atrophic

15. Farmer X sprays his corn fields with liquid manure. Some of the fields are parallel to a stream. Runoff from the field often pollutes the stream.

What type of pollution is this?

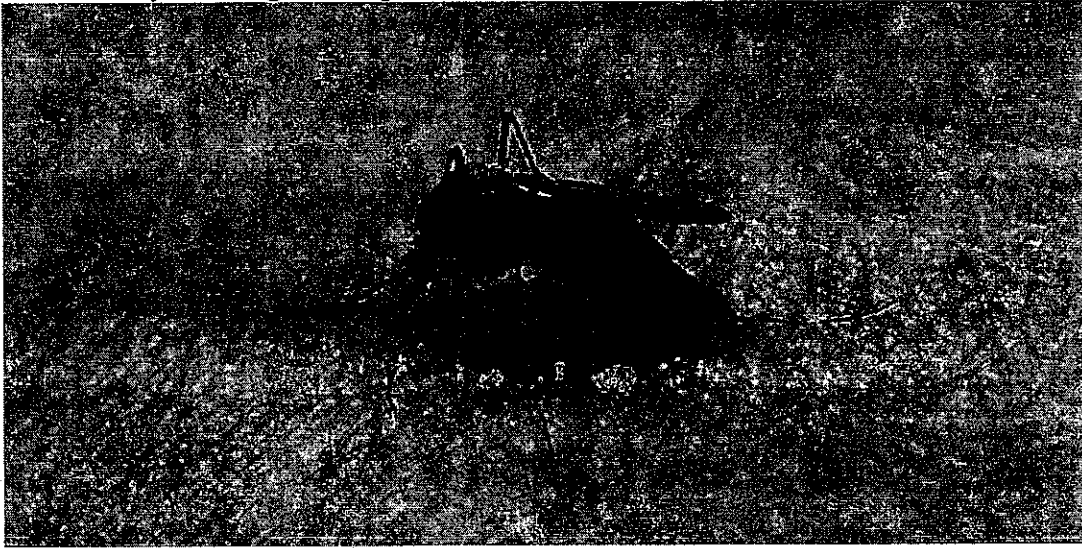
- a. Point source and toxic
- b. Nonpoint source and organic
- c. Nonpoint source and inorganic
- d. Point source and inorganic

16. Identify the organism pictured below using its common name.



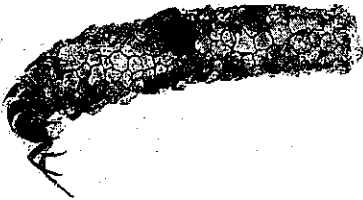
17. What indicator class does the organism in question 16 belong to?

18. Identify the organism pictured below using its common name.

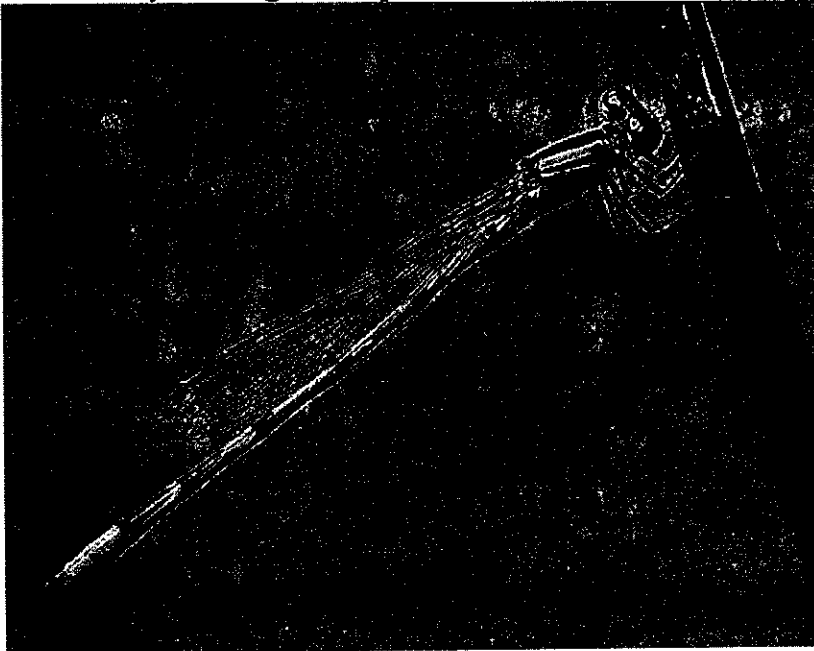


19. What type of metamorphosis does the organism pictured in #18 go through?

20. Identify the organism pictured below using its common name.

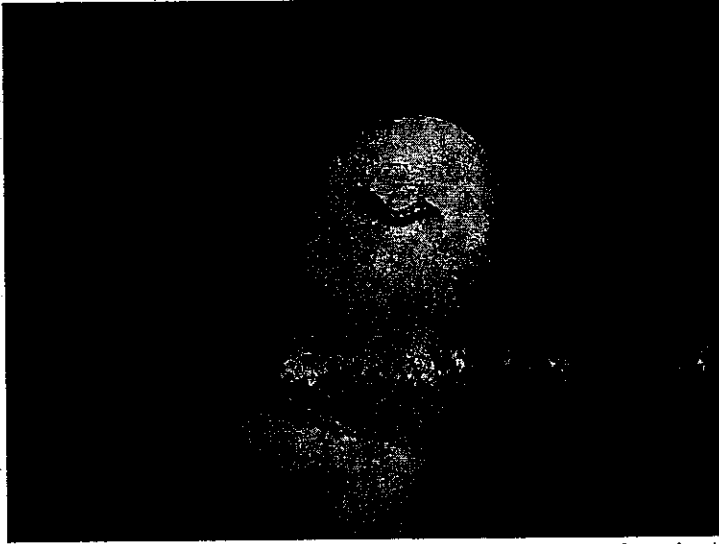


21. Identify the organism pictured below using its common name.



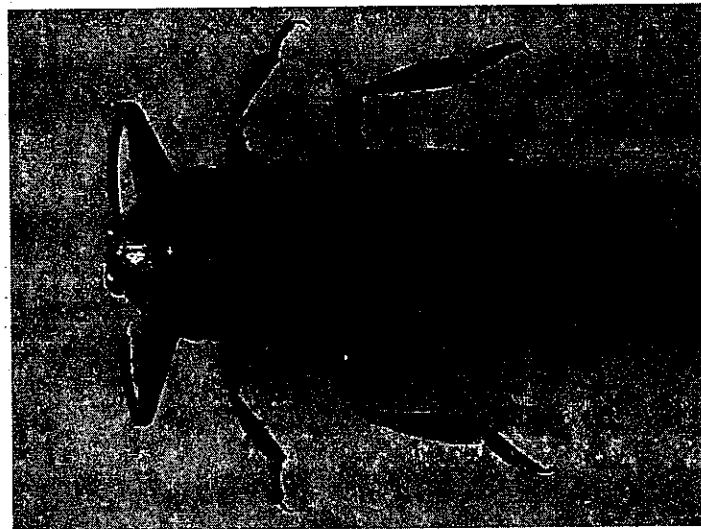
22. What indicator class does the organism in #21 belong to?

23. Identify the organism pictured below using its common name.



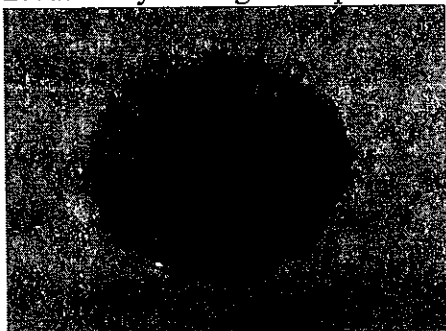
24. What type of metamorphosis does the organism in #23 go through?

25. Identify the organism pictured below using its common name.



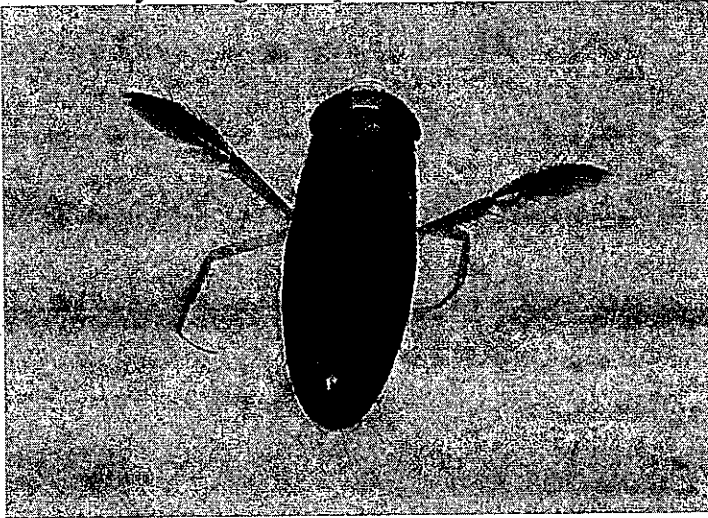
26. (Tiebreaker) What habitat is the organism in question #25 found in?

27. Identify the organism pictured below using its common name.



28. Is the organism in #27 an omnivore, herbivore or carnivore?

29. Identify the organism pictured below using its common name.



30. What indicator class does the organism in #29 belong to?

31. What pH range is necessary for freshwater ecosystems?

a. pH 6-7

b. pH 5-8

c. pH 4-6

d. pH 6-9

32. What instrument is used to measure turbidity? _____

33. Temperature:

a. does not affect metabolic rate.

b. affects an organisms sensitivity to parasites, pollution and disease.

c. does not affect reproduction

d. can be measured using a hydrometer.

34. _____ is a measure of the amount of suspended and dissolved particles in water.

35. What are the three sources of dissolved oxygen in freshwater?