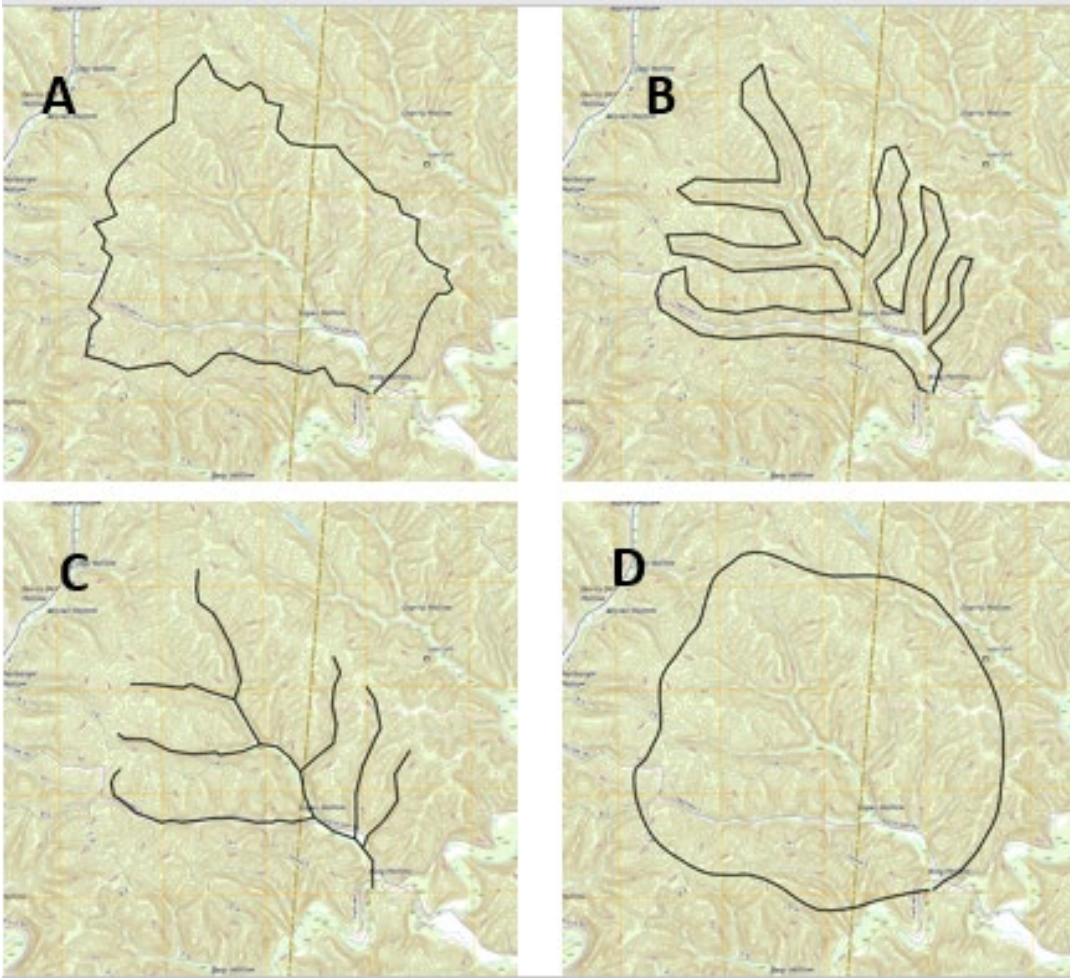


## 2023 Envirothon Aquatics Test

1. Ohio has lost what percentage of its original wetlands?
  - a. Under 20%
  - b. Approximately 50%
  - c. Approximately 75%
  - d. Over 90%
2. Which topographic map shows the correct delineation of a watershed? **A**



3. Before the glaciers advanced into Ohio 2.5 million years ago during the Pleistocene Ice Age, what was the name of the ancient river system that flowed north through Ohio from Kentucky and West Virginia then turned west and flowed into Indiana?
  - a. Scioto River
  - b. Ohio River
  - c. Teays River
  - d. Tuscarawas River

4. What river in Ohio made the cover of Time Magazine on June 22, 1969, because it caught on fire which drew national attention and helped with the passage of the Clean Water Act?
  - a. Mahoning River
  - b. Cuyahoga River
  - c. Hocking River
  - d. Muskingum River
  
5. Nonpoint Source Pollution can be caused by
  - a. Farm animals with free access to a stream or wetland
  - b. A discharge from a pipe that is regulated under the Clean Water Act
  - c. Stormwater runoff
  - d. a and c
  - e. All of the above
  
6. What type of freshwater habitat would you find larval two-lined salamanders and dusky salamanders?
  - a. swamp
  - b. headwater stream
  - c. lake
  - d. vernal pool
  
7. What type of freshwater habitat would you find adult hellbenders and mudpuppy salamanders
  - a. medium to large river
  - b. headwater stream
  - c. vernal pool
  - d. lake
  
8. A stream that has a pH reading of 3.5 is an indication of
  - a. A healthy ecosystem with numerous fish and aquatic insects
  - b. A stream impacted by a limestone quarry
  - c. A stream impacted by an abandoned coal mine
  - d. A stream impacted by row crop agriculture
  
9. By weight, what is the number one pollutant in Ohio?
  - a. Ammonia
  - b. Sediment (dirt)
  - c. Litter
  - d. Iron
  
10. The measure of water's ability to pass electrical flow that is directly related to the concentration of ions in the water is called
  - a. Dissolved oxygen
  - b. pH
  - c. Conductivity
  - d. Temperature

11. A Secchi Disk is used to measure
- Transparency
  - Dissolved oxygen
  - pH
  - none of the above
12. What is the most endangered aquatic taxa in Ohio?
- Dragonflies
  - Fish
  - Mussels
  - Mayflies
13. The study of lakes and other freshwater systems is called:
- Limnology
  - Geology
  - Hydrology
  - Fluvial geomorphology
14. What do rat-tailed maggots and mosquitos have in common?
- As adults, they bite humans and carry many diseases
  - They both belong to the order Diptera, the true flies
  - The larvae have a siphon to breath air at the water's surface
  - B and C
15. Identify this macroinvertebrate:
- Mayfly
  - Dragonfly
  - Crane fly
  - Stonefly
16. Identify this macroinvertebrate
- Crayfish
  - Water penny
  - Caddisfly
  - Hellgrammite
17. What do darters and catfish have in common?
- The preferred habitat for most species of darters and catfish is fast flowing water with a lot of oxygen
  - They are in the Ictaluridae family
  - They both lack a swim bladder and generally feed on the bottom of the stream bed
  - They both have overlapping Ctenoid scales which allows for great flexibility in movement.

18. The process in which lakes and reservoirs separate into three distinct layers (epilimnion, thermocline and hypolimnion) is called?

- a. Turnover
- b. Stratification
- c. Layer
- d. Buffering

19. Cyanobacteria are classified as:

- a. Algae
- b. Plant
- c. Protist
- d. None of the above

20. A network of streams and rivers that drain to one place is known as:

- a. Watershed
- b. Channel
- c. Riparian Area
- d. Point Source