

D1, 16 January 2008
 ECOL 437 LAB/DISCUSSION GROUP

Primary literature contains the original research results reported by scientists. Examples include journal articles, conference proceedings, dissertations. Before research results are published in a scientific journal, they must pass a rigorous review process by other scientists, called **peer review**.

RELIABLE

primary articles in journals/periodicals (e.g., *Evolution*, *Cell*)
 primary articles in books
 review articles in journals/periodicals
 book chapters
 textbooks
 articles in popular-press periodicals (e.g., *Scientific American*)
 laboratory manuals
 product manuals
 personal communications (e-mail, telephone, etc.) with scientists
 lecture notes
 newspaper articles
 articles in magazines (e.g., *Vogue*)
 web sites, rumors, hearsay, voices in your head
 outright fabrications

↑

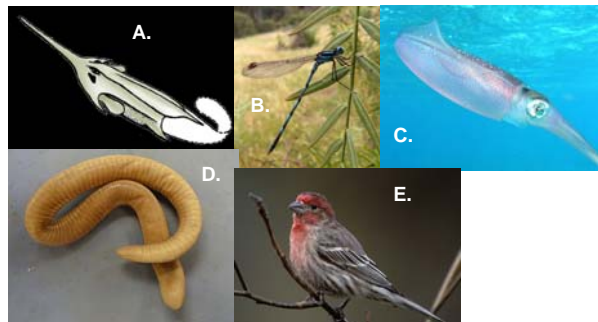
↓

SKETCHY

ADAPTED FROM: <http://www.swarthmore.edu/NatSci/cparrin1/litsearch.htm>

“Pop Quiz”!!!

1. Which of the following is not a vertebrate (may be >1):

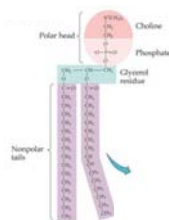


2. Identify each molecule as a: carbohydrate, lipid, protein, or nucleic acid.

a.



b.



c.



3. Which of the following is **not** a process that can, on its own, affect the distribution of an allele within a population?

- A. natural selection
- B. epistasis
- C. genetic drift
- D. artificial selection

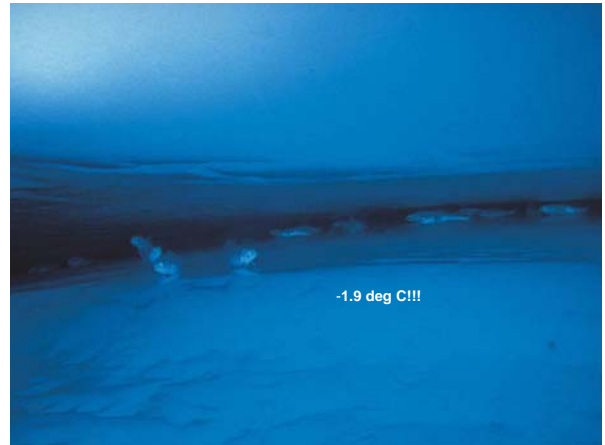
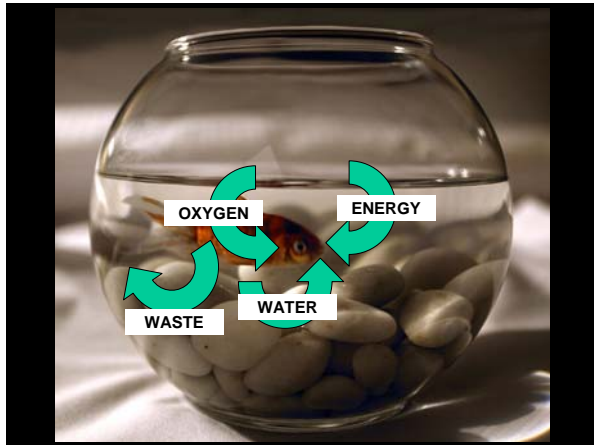
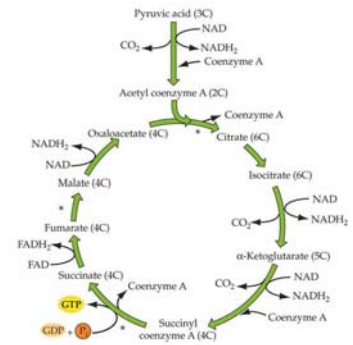
4. Schwann cells are found:

- A. on dendrites
- B. within the myofibrils of muscle fibers
- C. on the axon
- D. in the mitochondria
- E. in the lungs of Trumpeter Schwanns



5. This diagram illustrates:

- A. Photosynthesis
- B. Glycolysis
- C. Urea cycle
- D. Krebs cycle
- E. DNA transcription



ACTIVITY:

1. In pairs, go outside and find a (non-human) vertebrate to observe.
2. Spend ~15 minutes observing this organism and make lists addressing the following questions:
 - a. What challenges to survival does the organism face?
 - b. Can you see any traits that allow the organism to cope?
3. Return to the lab.

