BIOL 1010 Introduction to Biology: The Evolution and Diversity of Life. Spring 2011
Sections A & B

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Before anything I need to tell you about our Course Eval’s this semester . . .

You’ll be doing them online again! It’s a good thing. They don’t disrupt the course; there’s more of a chance that you’ll do them; you can do them at your leisure. But, please do them! Go to:

http://www.valdosta.edu/academic/OnlineSOIPilotProject.shtml

and follow the directions there, please. There’s even a lottery for raffle prizes!
Sorry about the delay with exam III grading. The computer situation was completely beyond my control.

But I complained to the IT bossman on Friday and Monday morning the machine was being reinstalled, after a bit more than a week.

So Exam III is graded and ready to be picked up, as well as Exam IV!
Exam number III...

* Was probably the hardest one all semester long, so don’t be too down on yourself. Remember, the final, and all that extra credit opportunity, is what really matters!

* The sectional exams are actually just tools designed to trick you into learning!

* However, you didn’t really do all that bad . . . .
Even though it was a pretty darn tough exam.

And, remember, the final is built directly off these old tests, and many of the questions we review each time will most likely be on the final (as well as others). Plus, the ecology test was much easier — you’ve been learning that stuff all your life. Furthermore, it had that optional extra credit essay, and only 75 questions!
Here’s the 1010A results for Exam III:

High 93%
Mean 66.5%
Low 29%
Actually better than previous distributions.
And the 1010B results:

High 92%
Mean 67.9%
Low 25%
About the same.
Here’s ten questions that only a third or less of you got correct . . .

In the general consensus phylogenetic ‘tree of life’ for the organisms in question #1 [Eukaryotes] that I presented [pick the true statement]:

A. The multiple endosymbiotic events that produced the chloroplast, correlate with phylogenetic placement
B. All of these organisms sort into only three primary, basal clades of life: plants, animals, protists
C. Most all scientists agree on the exact number of primary, basal clades for these organisms
D. Several different endosymbiotic events produced the mitochondria

The Archaeplastidae (Plantae) contains the Green Algae; which statement is not true regarding this clade?

A. Archaeplastidae also contains the land plants, Red Algae, and a microalgae named Glaucophytes
B. All Archaeplastidae have chloroplasts from a primary ancestral Cyanobacterial endosymbiosis
C. Archaeplastidae all convert excess sugar to starch for energy storage
D. Archaeplastidae all have chitin in their cell walls
Furthermore, which of the following statements is true about the seedless, vascular ferns and fern-like plants?

A. The Horsetails have silica crystals in their cell walls, and so are often called scouring rushes
B. Remains of giant fern tree forests from the Cambrian period formed our coal deposits
C. The Club mosses are the most derived, ‘advanced’ plant of the group
D. The true ferns have poisonous young fronds called fiddleheads

Important characteristics of fungi do not include which of the following?

A. They use hydrolytic digestive enzymes in extracellular digestion
B. Some are unicellular; most are multicellular
C. They have cell walls composed of cellulose
D. They store sugar as glycogen

Important characteristics of fungal sex and life cycles do not include which of the following?

A. All fungi release pheromones
B. In many fungi the zygote is the only haploid cell
C. Many fungi can reproduce either sexually or asexually
D. Many fungi retain either a haploid or a dikaryotic state for much of their life cycle
Which of the following statements is not true regarding the term “Bilateria”?

A. Bilateria all have bilateral symmetry as an adult
B. Bilateria all have three germ layers as a gastrula
D. Bilateria is a monophyletic clade on the tree of life
E. Bilateria includes organisms that are both invertebrate and vertebrate

Mouthpart anatomy is important in the phylum that includes insects, crustaceans, and arachnids; which of these is true?

A. The Chelicerata contains all the mites, ticks, spiders, scorpions, and horseshoe crabs
B. Mouthpart anatomy does not correlate to phylogenetic placement at all
C. The Chelicerata have crushing, tearing, or sucking mouthparts
D. The Mandibulata have piercing, claw-like mouthparts

The Cartilaginous Fish (Chondrichthyes) are a monophyletic clade; what is not true about them?

A. They are the most basal Gnathostomata (jawed vertebrate) clade
B. They evolved a lateral line system for detecting vibrations
C. They are the sharks, skates, rays, and chimeras
D. They have a swim bladder
The Carnivora do not include which of the following mammals?
A. Canines (dogs) and Felines (cats)
B. Racoons, weasels, badgers, etc.
C. Walruses and seals
D. Orca (Killer whales)

The Proboscidea (elephants, mastodons, and mammoths) closest extant [living] relatives are:
A. The Artiodactyls (even-toed hoofed mammals: deer, cow, pig, hippos, etc.)
B. The Perissodactyls (odd-toed mammals: horses, tapirs, rhinos)
C. The Cetaceans (whales, porpoises, and dolphins)
D. The Sirenians (includes manatees)

What did you fill in on the left /top end of the computerized answer sheet?
A. Nothing!
B. The wrong VSU student ID!
C. Only the printed number, no bubbles!
D. My VSU student ID, printed, and correctly bubbled in

About ten of you still didn’t do what it says! And a few didn’t even get it right!
And what about that Exam IV over ecology?

Most everybody did do better! Though there were a few notable exceptions.
Here's 1010A for that one:

High 97.3%
Mean 75.1%
Low 34.7%
Much better than previous distributions.
And 1010B for Exam IV:

Even better!
High 100%
Mean 79.5%
Low 34.7%
Weird – same exact low.
And there were only four questions that only a third or less of you got correct on this one . . .

If all of life is eradicated in some area for whatever reason, and then is slowly reestablished, this is called:

A. Secondary succession
B. A pioneer community
C. Primary succession
D. A climax community

The gross primary productivity of an ecosystem is:

A. The amount of energy used in metabolism by autotrophs
B. The amount of energy available to heterotrophs
C. The total amount of energy fixed by autotrophs
D. The amount of energy available to autotrophs
Which of the following is not a way that carbon returns to the atmosphere:

A. From plant respiration
B. From animal respiration
C. By plant photosynthesis
E. By the burning of fossil fuels

The area of an ocean consisting of all the water from the coast to the continental shelf is the:

A. Oceanic zone
B. Pelagic zone
C. Neritic zone
D. Photic zone

But almost ten of you STILL didn’t fill in your ID bubbles correctly. WITH 450 OF YOU (total), I DO NOT HAVE TIME WITH THE FINAL TO FIGURE OUT WHO THE MISSING PEOPLE ARE, BECAUSE GRADES NEED TO BE IN THAT FOLLOWING MONDAY MORNING. THEREFORE, IF YOU SCREW UP YOUR ID ON THE FINAL, YOU WILL NOT RECEIVE ANY CREDIT FOR IT!
Now back to Gaia . . .

And then, after that, on to behavioral ecology . . . a.k.a. ethology.