

CSB/SJU BIOLOGY DEPARTMENT NEWSLETTER

Volume 2 Number 5
October 14, 1998

1. Message from the Chair

Politics have been on my mind lately. One obvious reason is because Election Day is less than two weeks away. We are all being bombarded by ads, debates, campaign signs and other information to sway us to vote for a particular position or candidate. And, I certainly hope that you'll vote. Voting makes a difference. Here's a biological example of politics in action. Behind Oak Hill School in south St. Cloud is a 20 acre parcel of oak woods. The City of St. Cloud would like to preserve this area, but the landowner is asking a small fortune for it (\$18K/acre) and will only sell it in its entirety. Since the City can only afford to purchase 10 acres, they invited a local developer to purchase the other half. Politically, this is a perfect compromise – half of the woodlot gets saved. And, the developer has even made a few concessions to developing his half in an environmentally-sensitive manner. But, is this the best solution? One big question is whether the remaining 10 acres are sufficient to sustain the health and vitality of the woodlot. Ecologists are very concerned about this sort question because they know that the size of an ecosystem is important. Is 10 acres of oak wood enough? I hope so, but am worried that it's not enough. That's one reason why the neighbors of the woods are spearheading a drive to raise money to save the entire woods. At this writing, it's not clear if the City Council will approve the neighbors request. The one thing that is clear is that the Mayor and City Council have the power to make it happen. And we have the power to determine who sits on our City Council and in the mayor's chair. Voting counts.

2. Student News:

This past summer **Amy Hauptert** (CSB Senior) did some summer research for **Dr. Gordon Brown**. She helped him develop a summer field course in ecology and labs for the new course required for the Environmental Studies Program, Environmental Studies 250 (ENVS250).

Dante Beretta, SJU '86, who is a family-practice physician in Melrose, donated a variety of plants from the Virgin Islands (his homeland) to our greenhouse. Thanks Dante!

3. Faculty News

On October 30 **Dr. Reagan** will be the honorary assistant coach for the CSB volleyball team for their game against the (boo....hiss) University of St. Thomas. Dr. Reagan will be sitting on the bench with the players encouraging them, giving them playing tips, cheering fanatically and generally acting a bit goofy (more than usual). We just hope that Dr. Reagan can avoid creating any "incidents" with the referees or the Tommies. All Biology department faculty and students are encouraged to come out and cheer on the Blazer volleyball team in this tough match. The game is October 30 at 7:30PM in the HCC.

Bill Lamberts (CSB/SJU Biology Department) was appointed by the mayor of St. Cloud, Mr. Larry Meyer, to serve on the Environment and Development Team (EDT) for the Environmentally Sensitive Areas Ordinance in St. Cloud.

4. Curriculum News

The Biology Department is currently having discussions about the departmental curriculum. Among other topics, we are discussing whether Concepts should be expanded to a three-semester course. If you have any ideas, please forward them to any member of the

department.

5. Biology Club News

Halloween Science - The Biology Club is sponsoring Halloween Science once again. If you are interested in participating in this program, which will be held from 9:00 am to 12:00 pm on Halloween, October 31, our next meeting is 28 October, 1998, in the Herbarium. If you can't attend this meeting but still want to help, contact Dr. Saupe or Jennifer Smith.

6. Calendar of Events

Oct 19 Free Day
Oct 21 **Seminar**- "Pollution Prevention; Brenda Gassman and Cindy McComas
Oct 30 Cheer on Dr. Reagan and the CSB Volleyball team – Claire Lynch Hall
Oct 31 Halloween Science at CSB/SJU; 9:00 am.
Nov 5 NSF Graduate Research Fellowship Applications are due
Nov 7 GRE Test Dates
Nov 10 Howard Hughes Medical Institute application deadline
Nov 12 **Seminar**: Pathogenesis. Dr. Pat Schievert, UM Seminar
Nov 17 CSB/SJU Career Exploration Series presentation on volunteering
Dec 12 GRE Test Date
April 10 GRE Test Date
April 17 MCAT exam

7. Internships/Scholarships/Jobs

BIOLOGY LABORATORY COORDINATOR.

100% time position, Dept. of Biology, University of Minnesota, Duluth (UMD). Applicants must have bachelors degree in biological sciences and experience in lab management or support; masters degree in biological sciences preferred. Send letter of application, curriculum vitae, transcripts (copies ok), name, address, and phone number of three references to: Dr. C. E. Firling, Department of Biology, University of Minnesota, 10 University Drive, Duluth, MN 55812-2496. Postmark deadline November 14, 1998. For more information call 218-726-7566

**Biology Department Job Page - Don't about this great resource that you can link to it from the biology department home page or go directly to
<http://www.users.csbsju.edu/~biology/biojobs.html>.

**Interested in Volunteering after Graduation? The CSB/SJU Career Exploration Series will feature a presentation on November 17, 1998 in Teresa Reception Center, CSB at 7:00 p.m.

8. Seminars/Lectures/Symposia

**Dr. Pat Schlievert, a famous microbiologist from the University of Minnesota will present a seminar on November 12, 4:00 pm, Science Center Auditorium. The title of the seminar is "Similarities in the mechanisms of pathogenesis of *Staphylococcus aureus*, group A Streptococci, and *Enterococcus faecalis*". There will be a reception for Dr. Schlievert from 3:00 – 3:45 in the Natural History Museum. For more information, contact Dr. SG Saupe (2782; [ssaup@csbsju.edu](mailto:ssaupe@csbsju.edu)).

9. Miscellaneous

GOOD THINGS COME IN SMALL WETLANDS

When it comes to wetlands, it's not the size that counts. Although when most people envision a federally protected wetland, they picture vast areas full of birds and lush plant species,

University of Missouri-Columbia Professor Ray Semlitsch argues that small wetlands are important too. He hopes to emphasize the importance of smaller wetlands before they are managed out of existence. [Full Story <http://www.enn.com/news/enn-stories/1998/10/101298/wetlands.asp>](http://www.enn.com/news/enn-stories/1998/10/101298/wetlands.asp)

Didjknow.....

Biology is the second most popular major among St. John's students (management is first) and the third most popular major (behind elementary education and nursing) among St. Ben's students. There are 335 declared majors in Biology.

FINANCIAL MELTDOWN -- MANY THEORIES, MANY FUTURES – forwarded from *The Global Citizen* October 1, 1998. by Donella H. Meadows; P.O. Box 58; Plainfield NH 03781

There's a small upside to the big downside of the global financial implosion. We get to be amused by theories about why it is happening.

Scandals in Washington. Allen Greenspan. Panic about the turn of the millennium and the Y2K computer bug. The too-tight relationship between Japanese banks and the Japanese government. The Russian mafia, the coming launch of the Euro, the indisputable evidence of global climate change. I've heard these postulated causes and more from reputable businesspeople.

What's striking is that the theories all point to causes outside the financial system. They don't challenge the model, now dominant everywhere, of capitalism as a nearly flawless machine, turning out ever-increasing wealth, requiring only that we act according to our self-interest. The machine is slightly finicky, the theories imply, subject to breakdown if we stop acting as economic theory requires us to -- desiring ever more, working hard, choosing strong leaders, taking risks, being inventive, privatizing just about everything, competing vigorously but not cheating, and never, never losing confidence.

Given that model, when the machine s down, we have to find some human failure to account for it. Human failure is easy enough to find, so we end up with a rich assortment of causes for any crash.

I suspect we all actually know better. The people who most frantically recite the dogma of the free market probably know best of all. The fault is not in some outside glitch. The fault is in the machine itself, which has a morbid sensitivity to glitches.

We have only to look at history to see that booms and busts are endemic to market systems. We have only to look at very recent history to see one reason why. Nothing in the real economy has been getting more valuable at 30-40 percent per year. But financial securities have, round the world. The accounts of the small minority of people who own securities have swollen wonderfully, but those are just numbers on paper. Everyone knew that there was insufficient worth standing behind those numbers and that, when the music stopped, there would not be enough chairs for everyone to sit on something solid. Everyone knew, but no one dared say it, because saying it would make the music stop.

So now it has stopped. Numbers on paper are still coursing around the world, trying to find some real value to sit upon. The scramble is knocking down real chairs, making the situation worse. Folks who do the actual work of the economy are getting hurt more than those who were sucked into the speculative frenzy of dreams and greed but that's what always happens in capitalistic busts.

Peter Schwartz, a great strategic planner, formerly of Royal Dutch Shell, now of the Global Business Network, wrote a memo last August, putting forth three scenarios about where things might go from here. He calls them:

(1) "Sand in the Gears." Leadership fails to rise to the crisis. Reform measures are mainly cosmetic. Continued international economic and political friction. The whole world resembles Japan in the nineties, depressed for years. But the motor of growth does slowly revive.

(2) "Breakdown." A vicious circle of economic decline, political conflict, violence. Failure of leadership consumes most of the economic potential. The pattern resembles that of the early twentieth century -- booms, busts, devastating wars.

(3) "Shocked into Higher Gear." The crisis shocks people into high-speed creative destruction. Existing and new leaders act to accelerate innovation and restore confidence. Asia resumes rapid growth, increasing demand drives export and trade. The pattern resembles the extended growth of the 1950s and 60s.

I'm rooting for a fourth scenario: "Shocked into a New Economics," in which the creative destruction is directed at the obvious weaknesses of both socialism and capitalism.

The new economics would worship something far more satisfying than mere growth, especially since growth is ever more costly on this over-full planet. Actual human needs would be a fine focus. It would admit the novel idea of "enough." It would not have to whip up demand for stuff that no one needs (and that the planet cannot afford) just to keep satisfying bets on growth placed by people who have too much money but think they should keep getting more. Ensuring "enough" for both the poor and the rich would take away the insecurity, desperation, envy, greed and howling fear that drive the booms and busts of the market.

A new economics would still have a market, but it would put the market in its place, as the servant, not the master of society. It would reward work and investment, not speculation. It would keep its books straight, counting up environmental and family and community costs as well as money costs. It would find more truthful indicators of success than the GDP, which is a measure of frantic activity, not of actual welfare. It would redefine "jobs" so that people can be supported for real social contributions -- raising children, learning, teaching, caring, cleaning up, restoring the environment, making joy for others.

This new economics sounds nutty to those who are still mesmerized by the old economics, but it is alive and well-thought-through. (See anything written by economist Herman Daly; see the society and journal of ecological economics founded by him and others.) It's available any time we want it. To find it we just have to let go of our illusions about the clunky old machine that is failing us one more time, as it has before, as it always will, until we invent a better one. ([For more information contact Donella H. Meadows at 603-675-2230](#))

10. Joke of the week: *(a new section – we encourage submissions)*

Scientific Reasoning *(submitted by Mark Dockery)*

Sherlock Holmes and Dr. Watson went on a camping trip.

As they lay down for the night, Holmes said: "Watson, look up into the sky and tell me what you see".

Watson said: "I see millions and millions of stars".

Holmes: "And what does that tell you?"

Watson: "Astronomically, it tells me that there are millions of galaxies and potentially billions of planets. Theologically, it tells me that God is great and that we are small and insignificant.

Meteorologically, it tells me that we will have a beautiful day tomorrow. What does it tell you?"

Holmes: "Somebody stole our tent."

11. Frequently Asked Questions:

For more information, contact:

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