Biology Department Newsletter

Volume 8 Number 10 February 24, 2005

Letter from the Editor

Hi...hope you are enjoying the semester. I am always amazed at how quickly the spring semester seems to pass by – we are about ready to enter the maple syrup season, which means that spring can't be too far away. As always, you are welcome to join us at the sugar shack to volunteer or just stop by to visit.

As you can tell, this newsletter is being sent via email – I'm trying something new. As always, it is being sent to all biology majors/minors and students in BIOL116. If you are in one of those groups you can't be removed from our mailing list. We also send the newsletter to folks who have requested, at one time or another, to be put on our mailing list. If you are in



the latter group, you can remove yourself by sending me an email message.

The image to the right, taken by Dr. Larry Davis, is trombolites at Lake Clifton, Australia. To learn what a trombolite is – check out the "Miscellaneous" section of the newsletter. 'Till next time.

Student News

Kelly Fox, a Natural Science-Geology major, will be a co-author on a paper presented at the Cordilleran Section of the Geological Society of America meeting in April. The title of Kelly's paper is "Rolling Stones And Dino Binoes, Oncoids Of The Cedar Mountain Formation, Lower Cretaceous, Utah." This is an outgrowth of Kelly's research this summer while participating in an REU program through Gustavus Adolphus College. Kelly's co-authors are on the Geology faculty at Gustavus Adolphus. Russell Shapiro is a leading authority on stromatolites, and Julie Maxson is a sedimentologist.

Faculty News

Dr. Shawn Thomas – was awarded a National Science Foundation – ROA grant of \$19,700 for her project, "Geographical variation in the mating system of prairie voles." This ROA NSF Supplement awarded to Dr. Shawn A. Thomas is a cooperative project to expand on the study of geographical variation in the mating system of prairie voles. Specifically, Dr. Thomas will conduct a field study on prairie voles from the northern part of their range in Minnesota to complement our current studies on

voles from Illinois and Tennessee and conduct a series of laboratory experiments on mate choice, mate fidelity, and pair bonding in the purportedly monogamous prairie vole.

Curriculum News

Heath & Wellness Requirement Eliminated.

On December 1st, 2004, the faculty approved the following motion: The JFA votes to eliminate the HW requirement, effective immediately and retroactive to students who entered Fall 2004 and after. Students who entered prior to Fall 2004 are still required to complete PHED 117 for graduation. If you have questions about this change, please contact the Academic Advising Office.

Advisors for Pre-Professional Programs

Pre-Chiropractic Ed McIntee

Pre-Dental Manuel Campos, David Mitchell

Environmental Studies Derek Larson Pre-Forestry Stephen Saupe

Pre-Medicine Manuel Campos, Dave Huber, Jeffrey

Anderson, David Mitchell

Pre-Occupational Therapy Manuel Campos, David Mitchell Optometry David Mitchell, Manuel Campos

Pre-Pharmacy Ed McIntee

Pre-Physical Therapy Julie Deyak, Scott Bierscheid, Don

Fischer

Pre-Physician Assistant Manuel Campos, David Mitchell

Veterinary Medicine Ronald Henry
Forensic Science Michael Reagan
Genetic Counseling Michael Reagan

Finding an Academic Advisor in Biology

How and when do I find and academic advisor? In the spring of a student's first year, the registrar sends each student a card on which they need to obtain the signature of the faculty member whom they would like as their advisor. It is best to select an advisor who has knowledge in the area in which you are interested. Below is a list of the recommended advisors for various areas of interest.

Animal physiology:	Dr. Marcus Webster	
Aquatic ecology:	Dr. Bill Lamberts	
Biochemistry:	Dr. Ron Henry, Dr. Dave Mitchell, Dr. Mike Reagan	
Botany:	Dr. Steve Saupe, Dr. Cheryl Knox	
Cell Biology:	Dr. Mike Reagan, Dr. Elizabeth Wurdak	
Conservation biology:	Dr. Gordon Brown	
Cytology:	Dr. Elizabeth Wurdak	
Dental School:	Dr. Mani Campos, Dr. Dave Mitchell	
Developmental biology:	Dr. Jeanne Marie Lust	
Ecology:	Dr. Gordon Brown, Dr. Jim Poff	

Electron microscopy:	Dr. Elizabeth Wurdak	
Entomology:	Dr. Jim Poff	
Environmental Studies:	Dr. Bill Lamberts	
Evolutionary Biology:	Dr. Phil Chu, Dr. Chuck Rodell	
Field Biology:	Dr. Jim Poff	
Forensic Science:	Dr. Mike Reagan	
Forestry:	Dr. Steve Saupe	
Genetic counseling:	Dr. Mike Reagan	
Genetics:	Dr. Chuck Rodell	
Geology:	Dr. Larry Davis	
Graduate school:	Dr. Gordon Brown, Dr. Bill Lamberts, Dr. Jim Poff, Dr. Chuck Rodell, Dr. Cheryl Knox	
Human physiology:	Dr. Mani Campos, Dr. Marcus Webster	
Histology:	Dr. Elizabeth Wurdak	
Immunology:	Dr. Ron Henry, Dr. Ellen Jensen	
Medical School:	Dr. Mani Campos, Dr. Dave Mitchell	
Microbiology:	Dr. Ron Henry, Dr. Ellen Jensen	
Molecular biology:	Dr. Mike Reagan, Dr. Cheryl Knox	
Mycology:	Dr. Steve Saupe	
Occupational therapy:	Dr. Mani Campos	
Optometry:	Dr. Mani Campos, Dr. Dave Mitchell	
Organismal biology:	Dr. Phil Chu	
Paleontology:	Dr. Larry Davis	
Physician's Assistant:	Dr. Mani Campos	
Physiology:	Dr. Mani Campos, Dr. Marcus Webster	
Phytochemistry:	Dr. Steve Saupe	
Plant Physiology:	Dr. Steve Saupe, Dr. Cheryl Knox	
Pre-Health Careers:	Dr. Mani Campos, Dr. Ron Henry, Dr. Dave Mitchell, Dr. Mike Reagan	
Veterinary medicine:	Dr. Ron Henry	
Virology:	Dr. Ellen Jensen	
Wildlife management:	Dr. Gordon Brown	

Calendar of Events

Feb 25	2 nd Conference on the College Male	
Mar 3	Biology Dept Seminar: TBA	
Mar 9	Science & Religion Seminar	
Mar 16	"Bluebirds" (Fr. Bruce Wollmering, O.S.B.)	
March 17	Biology Dept Seminar: "Coevolution of language and morality in Homo sapiens"	
April 7	Plant Pathology Seminar – Univ. of Minnesota	

April 12	Biology Dept Seminar: "Analysis of serine proteases from Lumbriculus variegates"	
Apr 13	Pathways to Bioscience	
April 19	St. Cloud State Research Conference	
Apr 20	"Nature Around Us" – Jeff Latzka	

Biology Club News

• Co-presidents: Jen Tarmann, Jeremy Eisenschenk, Ryan Kroschel (spring)

Treasurer: Lindy WatanaskulPR-Secretary - Jake Theis

Scholarships/Graduate Study

Biodiversity of Tropical Plants

Students with an interest in tropical biology can consider this course offered June 12 - July 8, 2005 at the Kampong of the National Tropical Botanical Garden, Coconut Grove, Florida. The instructors are P.B. Tomlinson (National Tropical Botanical Garden) and W.L. Stern (University of Florida). The course is directed toward students already enrolled or about to be enrolled in a graduate program and will introduce the diversity of tropical plant types. Study will be based on the living collections of The Kampong, supplemented by those at other South Florida institutions (e.g., Fairchild Tropical Garden, Montgomery Botanical Center) and on plants in natural environments (e.g., Biscayne Bay, Everglades National Park and the Florida Keys).

Emphasis is on the biological attributes of plants that adapts them to tropical environments. This involves the study of whole plant morphology (e.g., tree architecture) and the anatomical adaptation of plants to contrasted tropical ecosystems (e.g., mangroves versus seagrasses). Further study emphasizes tropical plants of distinctive habit and habitat (e.g., palms, cycads, epiphytes, climbing plants). This information is presented in a systematic context, but the objectives are not primarily systematic.

The work involves some laboratory and classroom demonstration together with frequent outdoor presentations and excursions. The final week of the course requires each student to prepare and present an original individual research project leading to a written and graded report.

The course is designed to develop an approach to the study of plants that will broaden general biological understanding of plant diversity and facilitate the thesis research of graduate students.

Master of Environmental Health & Safety Program

The University of Minnesota Duluth is hosting an information session about their graduate program in Environmental Health & Safety on March 7, 2005. Faculty, staff and current MEHS students will provide information and answer questions about this degree program. The information session is informal and will take place Monday, March 7, 2005 from 4:00 to 6:00 p.m. in Room 201 Voss-Kovach Hall at the

University of Minnesota Duluth. Beverages and snacks will be served. Faculty and current students will speak briefly about the MEHS program and will also be available to answer questions. Please RSVP to: or via phone at 218-726-8117. Information about the MEHS program can also be found on our <u>website</u>.

E-Scholars Program

Interested biology? Starting your own business? Entrepreunership? If so, the E-Scholars program is for you. For more information contact Terri Barreiro, McNeely Center for Entrepreneurship; 350 Simons Hall; 320-363-2373

Links for Scholarships/Grants/Fellowships for Graduate Study

- CSB/SJU Career Services Links
- CSB/SJU External Scholarship Program Office HAB 103
- The American Chemical Society Scholars Program
- Graduate School Tips some useful graduate school resources for students.

Jobs/Volunteer

Thomsen's Greenhouse - Help Wanted

Thomsen's Greenhouses, located just 2.5 miles from SJU, is looking for people for part-time, flexible hours in spring with possible summer employment. This is an opportunity to learn and earn at the same time. Requirements: work in a public retail setting, willing to run a bobcat or learn, may need to do heavy lifting. Stop in for an application or call 363 – 7375.

St. John's Arboretum Fellowships

The St. John's Arboretum will be hiring two, full-time fellowship positions to begin in May 2004. One will be an <u>Environmental Educator</u> and the other will be focused on <u>Writing, Marketing, Communications, and Office Management</u>. Applications are due February 25th. Applicants must be graduates of Saint Ben's or Saint Johns within the last 4 years. For more information visit the web sites or contact <u>Mr. Thomas Kroll;</u> Land Manager and Arboretum Director; Saint John's Abbey and University; New Science 108; Collegeville, MN 56321-3000; 320-363-3126.

Career Event: "Pathways to the Biosciences"

On Wednesday, April 13th, 2005, at the Science Museum of Minnesota (St. Paul), the Career Resource Center at CSB/SJU, in conjunction with the other schools in the Minnesota Private College Consortium will sponsor a program to help students learn about the possibilities in various bioscience career fields. The program begins at 3:30 and runs until about 7:00 pm. Parking will cost them roughly \$1/hour, and they have free admission to the Science Museum that day if they are interested. There will be a \$5 registration fee for this event. There is a strong likelihood that Gov. Tim Pawlenty will give a brief intro to the group at 4:00, as he has a strong interest in the biosciences. For more information contact Kirsten Cahoon, Personal and Professional Development Center at St. John's University/College of St. Benedict.

Commute to Careers: Healthcare, St. Cloud Hospital,

On Wednesday, March 2nd, 6:30-8:30 at the St. Cloud Hospital there will an opportunity for science majors interested in direct service-type work. CSB/SJU alumni will be on-hand to discuss their career in medical-related fields. For more

information, contact Kirsten Cahoon, Personal and Professional Development Center at St. John's University/College of St. Benedict. Pre-Registration is required by Friday - 25 February.

Seasonal Fire Crew - Pheasants Forever, Inc.

Work with local Pheasants Forever Habitat Specialist as a member of a crew doing prescribed burning on local grassland. Duties will involve loading and unloading equipment, taking weather readings, establishing wet and black lines, monitoring fire behavior and activity, patrolling fire perimeter, and mopping up. Depending on qualifications and training, assignment may start with participation in an NWCG-sanctioned fire training program during the first week in April 2005. The period of work will be intermittent, during 10 April 2005 to 20 May 2005. Depending on Habitat Team workload, seasonal fire crew may have the opportunity to assist with other activities. Submit resume and references to Pheasants Forever, Inc., 3274 490th St, Montevideo, MN 56265 or contact Habitat Specialist Dennis Pederson (320)564-0100, (320)905-9403 (C) for further information.

Two Ecology Field Assistant Jobs – Summer 2005

We are looking for 2 highly motivated upper class undergraduate students who are interested in field experience in ecological research. The students will assist faculty with field experiments and observations as part of two new projects to evaluate interactions among root-, stem-, leaf- and flower head-feeding insects and their consequences for the host plant individuals and populations. Field assistants will have a chance to gain experience with a wide variety of ecological field techniques, including insect exclusion experiments, soil nutrient manipulation experiments, quantification of herbivore damage, quantification of plant growth and reproduction and measuring demographic rates of plant populations. Field assistants also will have opportunities to learn basic principles of experimental and sampling design in field ecology as well as identification of key insects of tallgrass grasslands. Most fieldwork will be conducted in eastern Nebraska tallgrass prairie, but projects will involve trips to mid-grass prairie in the Nebraska Sand Hills and south-central Kansas tallgrass prairie. The positions are for at least 3 months: 20 May - 20 August. Although the ideal start date for both projects in 20 May 2005, it could be flexible for an appropriate candidate who can remain later in the summer. Salary stipend is \$1,300 / mo., plus a \$300 housing allowance. For more information contact Dr. F. Leland Russell, Department of Biological Sciences, Wichita State University or Dr. Svata M. Louda, Charles Bessey Professor, School of Biological Sciences, University of Nebraska-Lincoln (leland.russell@wichita.edu, 316-978-6091; Slouda@unl.edu, 402-472-2763).

CSB/SJU Fast Forward Youth Program Seeks Tutor Volunteers For more information, visit their <u>web site</u>.

Web Sites:

- CSB/SJU Career Resources Office
- CSB/SJU E-Link
- CSB/SJU Financial Aid
- CSB/SJU Student Employment
- SELT
- Science Jobs
- MN DNR Volunteer Activities
- Careers in Botany

Internships/Research

Summer Research in the CSB/SJU Biology Department.

Applications are now being accepted for students to conduct research this summer in the CSB/SJU Biology Department. *Applications are due VERY SOON – don't delay.*

The summer research program in Biology offers students an opportunity to engage in scholarly work during the summer, working closely with faculty members in a professional environment. These positions are intended to provide students experience in biological research beyond the classroom, to continue the scholarly pursuits of our faculty, and to develop partnerships between them. Proposed projects include:

- Historical ecology and plant population biology Dr. Gordon Brown. Students will collaborate on analyses of fossil pollen, plant fragments, and charcoal collected from lake sediments. We also plan to initiate studies of the population biology in an understory shrub, Eastern Leatherwood (Dirca palustris).
- Phenotypic plasticity in the yeast Candida albicans Dr. Ellen Jensen. From our previous work, we know that yeast can alter their growth form when exposed to the chemical agent farnesol. Students will collaborate with Dr. Jensen in a project to characterize this ability in a series of mutant forms of *C. albicans*.
- Repair of DNA damage in the yeast Saccharomyces cerevisiae Dr.
 Michael Reagan. This project is to examine recovery of gene expression
 (transcription) following DNA damage. Students will use Northern blotting of
 mRNA to investigate transcriptional recovery in the yeast S. cerevisiae
 following DNA damage.
- Mate choice and fidelity in Prairie Voles Dr. Shawn Thomas. Students will trap Prairie Voles (Microtus ochrogaster) from nearby Stearns Co. Through experimental manipulations and videotaped behavioral observations of captive voles, we will investigate mate choice, fidelity and paternal behavior in these supposedly monogamous rodents.
- Metabolic adaptations in mice Drs. Elizabeth Wurdak and David Mitchell. We are continuing a study initiated last summer on metabolic adjustments of mice (Mus musculus) to diet, age, gender, and training. Two students will be responsible for daily feeding and weighing of animals, biochemical assays on tissues and blood, and histological examination of euthanized animals. Initial results suggest that mice placed on a version of the popular Atkins diet actually gain weight and show abnormal development.
- Biochemical and cellular responses to environment in bacteria and rotifers - Drs. Elizabeth Wurdak and David Mitchell. This project will examine the ability of bacteria and selected Rotifer species to adapt to cold,

salinity, ammonia concentration, and other extreme environmental conditions.

• Developing instructional lab exercises in organismal physiology - Drs. Manuel Campos and Marcus Webster - One or two students will work with us to produce new laboratory exercises for Biol 221, the new 2nd semester course in Organismal Biology. The project will emphasize computerized data acquisition, analysis of EKG and EMG waveforms, and the use of Excel and statistics software to present physiological data. Our goal is to develop unique investigative labs and to compose clear, detailed lab instructions for 1st year Biology students. Students willing to begin work 5/9 are preferred.

We anticipate hiring 8-10 students during Summer 2005. Applicants must be current CSB/SJU students. First and second year students, students of color, and international students are especially encouraged to apply. The Fellowships include wages for 10 wks of full time work (\$8.22/hr or \$3,288). Students also receive a room and board supplement (\$2.45/hr or \$980) to cover the expenses of on-campus living. Students may also choose to live off campus.

Most projects will run from May 16 -- July 22, but the specific times of employment vary. All Fellows must attend safety training on May 16th.

To apply, complete an SRF application form (available in the Natural Science Division office, PE 275) and return it to the Office Coordinator, Natural Science Division Office, PE 275 by Feb 24 at 4:00 pm. Applications received after that date cannot be guaranteed consideration. Applicants will be interviewed by prospective faculty mentors during the week of Feb 28. Awards will be announced by March 4.

Anthropogenic Impact on the Environment – a Summer Undergraduate Research Program.

A summer research program hosted by Texas A&M-Corpus Christi is offering a NSF funded Research Experiences for Undergraduates program this summer. The program runs from May 31-August 5, 2005. Application deadline is March 1, 2005. Students will do research on an independent project and on a cohort project. They will also hone their professional skills, go on field trips (some overnight) and have an Ethics in Science course. More information about the program and online application are available at www.sci.tamucc.edu/surf/. Students receive a stipend of \$3,500 for the 10 week program, free board, a food subsidy, partial travel reimbursement and a travel subsidy to a scientific meeting during '05-'06.

Summer Research at Duke University in Bioinformatics and Phylogenetics

The Department of Biology at Duke University invites applications for seven positions in the second year of an undergraduate research program in Bioinformatic and Phylogenetic Approaches to the Study of Plant and Fungal Biodiversity.

Applications to participate in Bioinformatics and Phylogenetics will be accepted from sophomore and junior undergraduates. The focus of the ten-week summer program will be a full time research project with an integrated research team of graduate students and a faculty mentor in the Department of

Biology. The seven faculty who will serve as mentors this summer have active research programs ranging from the Tree of Life initiative to reconstructing species-level genealogies, and within species and population-level genomic-based biology of plants and fungi. The research environment at Duke offers state-of-the-art facilities, including world-class research collections of plants and fungi, a diverse living reference collection of plants and cultures of fungi and algae, the Duke Biology Genetic Analysis Facility, and the experimental setting provided by the Duke Forest, including the Forest-Atmosphere Carbon Transfer and Storage (FACTS-I) site and the Mycological Observatory.

For further information and application materials, please contact Dr. Paul Manos at pmanos@duke.edu, or <u>visit their web site</u>. The application deadline for the 2005 program is March 11.

Plant Conservation Biology Internships Available

During the 2005 field season, the Institute for Applied Ecology (IAE) and the Native Plant Society of Oregon (NPSO) will co-sponsor internships in plant conservation biology. This program is intended to provide an initial research experience to individuals considering conservation biology as a career choice. It is especially appropriate for students who have recently completed or will soon finish their undergraduate degree and desire field experience before attending graduate school. Open to anyone, priority will be given to life science (especially botany or biology) undergraduates, recent graduates, or individuals seriously thinking of a change in career towards conservation. Applicants must be available in early May (preference will be given to applicants who can start by May 2, 2005 or earlier).

We are currently recruiting for full-time summer interns to assist with our ongoing field projects, including endangered plant monitoring, management, and restoration, development of invasive weed control methods, and regional research to evaluate prairie restoration methods. The internships typically run 12-14 weeks from early May through mid-August, and will be involved with a diversity of field and lab projects dealing with plant demography, population monitoring, habitat management, species re-introduction, and vegetation sampling.

Interns receive a net hourly wage of \$7.35/hr in addition to reimbursement of travel expenses associated with fieldwork (food and lodging). Extensive fieldwork (often including overnight car-camping or motels) will be required, so applicants should be in good physical condition. Approximately 50% of the work is conducted out-of-town/overnight. All activities will be coordinated out of Corvallis, Oregon, requiring interns to live in the mid-Willamette Valley area. Housing is not provided.

The deadline for internship applications is March 18, 2005. To apply, send a letter of interest, resume, relevant college transcripts or course list, and two letters of recommendation to the address below. Be sure to state when you would be available to start work (this is a MUST). Finalists may be interviewed in Corvallis, Oregon or by phone. For more information, visit us at www.appliedeco.org. If you have any questions, please contact: Tom Kaye; Institute for Applied Ecology; 563 SW Jefferson Ave; Corvallis, Oregon 97333; phone: (541) 753-3099; fax: (541) 753-3098; email: kayet@peak.org or visit their web site.

Internship Links

• Internship program at the Minnesota Bureau of Criminal Apprehension.

• CSB/SJU Internship Office Home Page (-New Internship Opportunities page; Environmental Internships; Science Research; Women's Issues)

Links for Undergraduate Research at CSB/SJU

- CSB/SJU Career Resources Office
- Honors Thesis web site

Links to Summer Research

- CSB/SJU Career Resource Office Links
- <u>University of Minnesota Summer Undergraduate Research</u>
- BioInformatics Summer Research Program UM
- <u>Summer Research Interns Gundersen Lutheran Medical Foundation</u>
- Roswell Park Cancer Institute
- NSF Summer Research in Ecol & Evol Biology (REU) Univ. Kansas
- U of Wisconsin Summer Research Program in Biology.
- Baylor College of Medicine Summer Research Program
- Berry College Research Experiences for Undergraduate (REU) Program
- Mote Marine Research Lab

Seminars/Symposia/Field Trips

Biology Department Seminars

(All seminars are at 4:00 PM in PENGL 373 unless otherwise specified)

Mar 3	Dr. Christopher Kvaal (SCSU)	ТВА
March 17	Dr. Chuck Wright (CSB/SJU Philosophy)	"Coevolution of language and morality in Homo sapiens"
April 12	Dr. Kay Tweeten (Coll of St. Catherine)	"Analysis of serine proteases from Lumbriculus variegates"

Plant Pathology Symposium - University of Minnesota (Twin Cities)

The Plant Pathology department at the University of Minnesota will hold a symposium entitled "The Role of Plant Pathogens in Natural Ecosystems" on April 7, 2005. There is no charge. For more information, <u>visit their website</u> or contact <u>Senia</u> Vetter.

Science and Religion Dialogue by Dr. J. Wentzel van Huyssteen

On March 9, Dr. van Huyssteen will discuss the interrelationships between science, religion, and culture in the postmodern world. This public lecture will be at 8 p.m. in the Alumni Hall.

2nd Annual Conference on the College Male

The Center for Men's Leadership and Service would like to formally invite you to the 2nd Annual Conference on the College Male. This is a great opportunity for students, faculty and staff. The best part is that it is free for CSB/SJU students. The conference will be held the weekend of February 25-27. Nationally known speakers, including: Dr. Michael Kimmel, Dr. Harry Brod, Will Fellows, Dr. Robert Jensen, and

many others will present. For more information please go the <u>Center for Men's</u> <u>Leadership and Service website</u>.

SCSU Undergraduate Research Colloquium

The St. Cloud Sate University Undergraduate Research Colloquium is Tuesday, April 19. The deadline to indicate an intent to present at the colloquium is Tuesday, February 1. Abstracts must be submitted by Tuesday, March 1. A brochure on the event is attached, and the web site appears below. For more information, visit the SRC website:

Central Minnesota Audubon Society

The Central Minnesota Audubon Society meets on the 3rd Wednesday of the month in the Unitarian Fellowship Building in St. Cloud (south of Walmart, <u>click here for directions and more info</u>). Everyone is invited to attend Audubon meetings. If you need a ride to this, or other, Audubon program, contact Dr. S Saupe. CMAS presentations for the remainder of the semester include:

Mar 16	"Bluebirds" (Fr. Bruce Wollmering, O.S.B.)	
Apr 20	"Nature Around Us" – Jeff Latzka	

Miscellaneous

Reward- \$1,000

On Tuesday, February 22nd six projectors were stolen from classrooms on the SJU campus. These projectors were located in Simons G40, 310 and 340, Peter Engel Science Center 225 &325, and Quad 247. If anyone has information or noticed anything out of the ordinary please contact Life Safety at #2144. IT Services is offering a \$1000 reward to anyone with information leading to the arrest and conviction of the individual(s) responsible for this crime. Your identity can remain confidential. Any information or assistance you can provide will be greatly appreciated!

Trombolites – An Australian Phenomenon

Dr. Larry Davis, SB/SJU Biology Department, is currently directing the Australian Study Abroad program. He writes that he's "on the trail of the thrombolite,...which are one of a series of structures generally referred to as stromatolites. Over 3 billion years ago, stromatolites were the dominant (and possibly ONLY) life forms along the shorelines of lakes and seas. Stromatolite structures are found as fossils in some of

the Earth's oldest rocks. Stromatolites declined with the rise of gastropods and other grazing organisms about 600 million years ago. The cyanobacteria which produce stromatolites are still around, but are continually being cropped by grazers, consequently the stromatolite structure doesn't devleoped.



However, there are some special areas of the world where the stromatolitic structure does develop and the best known are in Western Australia. Specifically at Shark Bay, about 800 kilometers north of Fremantle and Lake Clifton, about 100 kilometers south of Fremantle. Interestingly, the oldest known fossil stromatolites are from the North Pole Mining District of Pilbara, Western Australia and are approximately 3.4 billion years old.

"The unusual aspect of the Lake Clifton thrombolites is that they are associated with a high bicarbonate freshwater system. It is hypothesized that subsurface upwellings of groundwater along eastern shore of the lake make it possible for cyanobacteris to thrive and stablize carbonate sediment in the lake. The cyanobacteria form a microenvironment where carbonate sediment is either trapped or precipitated.

"When cut in half, stromatolites (thrombolites) resemble a cabbage or head of lettuce that thas been cut in half. The leaves of the cabbage represent the thin laminae produced by the trapping action of the cyanobacteria. It is still unclear as to why the domal shape develops."

News from the Melancon Greenhouse

The CSB/SJU Biology Department Greenhouse is located in the SE corner of PENGL and is open daily from about 9 - 4.

News from the CSB/SJU Bailey Herbarium - by Stephen Saupe

Remember, the herbarium is always open from about 8 - 5 daily and is open to anyone to study, relax and/or use the networked computer.

Web Sites Worth A Visit

- Science On-Line
- Nature (online 1997 current)

Puzzler of the Week

(Do you know any good puzzlers? Please send us your ideas.)

New Puzzler

Why are plants that are grown outdoors usually taller and more spindly than the same plant grown in a greenhouse – even if they receive the same amount of light, nutrients, water, etc?

To enter the competition, simply send your answer to Dr. S. Saupe via email or snail mail (c/o Biology Department, St. John's University, Collegeville, MN 56321), campus mail, or simply slide the entry under my office door, SC335). The winner will be selected randomly from among the correct entries. The winner will receive an official CSB/SJU Bailey Herbarium Magnet. Entries are due March 7, 2005.

Joke of the Week

(Have you heard any good jokes? Please share them with us.)

Some Things You'd Like to Say at Work - But Shouldn't.

- 1. "I don't know what your problem is, but I'll bet it's hard to pronounce."
- 2. "I see you've set aside this special time to humiliate yourself in public
- 3. "I'm really easy to get along with once you people learn to it my way."
- 4. "I'll try being nicer if you'll try being smarter."
- 5. "I'm out of my mind, but feel free to leave a message."
- 6. "Ahhh...I see the screw-up fairy has visited us again."
- 7. "I like you. You remind me of myself when I was young and stupid."
- 8. "You are validating my inherent mistrust of strangers
- 9. "I have plenty of talent and vision. I just don't give a damn."
- 10. "I'm already visualizing the duct tape over your mouth."
- 11. "I will always cherish the initial misconceptions I had about you."
- 12. "Thank you. We're all refreshed and challenged by your unique point of view."
- 13. "The fact that no one understands you doesn't mean you're an artist."
- 14. "Any connection between your reality and mine is purely coincidental."
- 15. "What am I? Flypaper for freaks!?"
- 16. "I'm not being rude. You're just insignificant."
- 17. "It's a thankless job, but I've got a lot of Karma to burn off."
- 18. "Yes, I am an agent of Satan, but my duties are largely ceremonial."
- 19. "And your crybaby whiny-assed opinion would be...?"
- 20. "Do I look like a people person?"
- 21. "I started out with nothing and I still have most of it left."
- 22. "If I throw a stick, will you leave?"
- 23. "Errors have been made. Others will be blamed."
- 24. "Whatever kind of look you were going for, you missed."
- 25. "I'm trying to imagine you with a personality."
- 26. "A cubicle is just a padded cell without a door."
- 27. "Can I trade this job for what's behind door #1?"
- 28. "Too many freaks, not enough circuses."
- 29. "Chaos, panic, and disorder my work here is done."
- 30. "How do I set a laser printer to stun?"

Frequently Asked Questions

none submitted

For more information, contact:

Dr. Stephen G. Saupe
Professor & Herbarium Curator
Biology Department
College of St. Benedict/St. John's University
Collegeville, MN 56321
(320) 363-2782; (320) 363-3202 (fax)