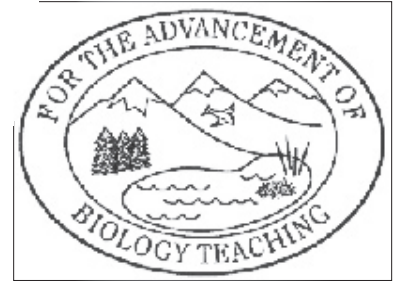


# CBTA newsletter For Biology Teachers



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## President's Message:



“This is not the biology I learned in school...”

This is a common comment I hear from parents of students. According to Wikipedia, biology is the study of life and a branch of the natural sciences, which studies living organisms and how they interact with each other and their environment. I am sure I was given a similar explanation in classes. When I was in college, I thought I had many answers. I remember hearing in classes that “you might be able to extract DNA in class and perhaps even YOUR own DNA someday.” I thought, “yeah, right.”

Today, you and I have many students who extract DNA, cut it with restriction enzymes, and run the DNA pieces through gel electrophoresis. I remember thinking how cool it would be to be able to do this in class, and after I took a weekend class early in my teaching career, I learned how to do DNA extraction and gel electrophoresis. Then, within the last fifteen years or so, Kerry Mullis discovered PCR. For myself, like you, I learned about a thermocycler and PCR and I am able to have student’s run his or her own DNA and determine if they are homozygous dominant, homozygous recessive, or heterozygous for the PV-92 insert or determine if types of fruits from the store are genetically modified or not. When I was in school, I never, ever would have imagined that I would be teaching this type of “biology”. My, how has biology changed.

Today, there is a movement to study what is called “Systems biology”. According to the Institute for Systems Biology: “Systems biology is the study of an organism, viewed as an integrated and interacting network of genes, proteins and biochemical reactions which give rise to life.” This a new developing field of biology, beyond all the advances that are in the news all the time in branches of genetics, evolution, medicine, environmental science and others.

My history lesson is with the ever-changing world of biology, is that it is important to stay current in the biology field with by taking advantage of professional development opportunities. Belonging to CBTA, NABT, and other science organizations and being an ACTIVE member in these organizations is important to you as a professional. These organizations provide educators the opportunities for professional development. CBTA and local agencies, thanks to Mike Sipes and Keith Anderson, helped put on a wonderful fall workshop in September. The Colorado State Science Convention, title the “Evolution of Science Education on November 20-21, 2008 at the Denver Merchandise Mart. Check the website: “<http://www.colobiota.org> for details about the winter social. Also, check soon for the date of the Spring Symposium, about the third Saturday in April. Hope to see you at the State Convention.

Mark Little\

PS. Mark your calendars: NABT is coming to Denver November 11-14 2009. There will be opportunities to get involved, please check the web or future newsletters.

## KEVIN L. LINDAUER HONORED AS OUTSTANDING BIOLOGY TEACHER FOR 2008

*The National Association of Biology Teachers (NABT), in conjunction with Prentice Hall and the Colorado Biology Teachers Association (CBTA), is pleased to present Kevin Lindauer of John F. Kennedy High School, Denver, CO, with the Outstanding Biology Teacher Award for CO for 2008. This honor, given annually since 1961 by NABT, identifies outstanding biology teachers in all 50 states, Wash. D.C. and Puerto Rico, Canadian provinces, & overseas territories. Teachers who teach the majority of their classes in the life sciences in grades 7-12 in public or private schools are eligible. Colorado honorees are selected by actual classroom visitations & observations.*

*Kevin Lindauer teaches classes in Biology, Environmental Science, Physical Science, and Principals of Engineering. He has been teaching for 16 years. Lindauer received his B.A. degree in molecular, cellular, and developmental biology from the University of Colorado and his M.A. in curriculum and instruction from the University of Phoenix. Lindauer will be honored at the CBTA Life Sciences Symposium, Saturday, April 19, held at the National Jewish Medical Center. His achievements will be celebrated at the 2008 NABT Professional Conference in Memphis, Tennessee, October 15 to 18 and at the Colorado Science Conference, November 20 & 21 at the Denver Merchandise Mart. Lindauer will receive a pair of binoculars donated by the OBTA sponsor, Prentice Hall. NABT will provide certificates for him & his school. CBTA will contribute a plaque & a \$350 honorarium toward his travel expenses.*

*Lindauer will be presented with over \$4000 worth of prizes, including a microscope from Leica, Inc., a Video Flex portable camera from Ken-A-Vision, Biology Entry Probe Bundle from PASCO, a TI 84 + graphing calculator from Texas Instruments, 13 photographic atlases from Morton Publishing Co., a World Population DVD from the Population Connection, a DNA model from The DNA Store, Genes in a Bottle kit from Bio-Rad, and books from Flinn Scientific and from Great Source. He will receive gift certificates for merchandise from Banks School Supply, Carolina Biological Supply, ThermoFisher Science Ed, Nasco, Nebraska Scientific, Sargent-Welch, Science Kit & Boreal Laboratories, & Ward's Natural Scientific. Lindauer will receive cash stipends from Keith Anderson, David Dean of A+ Microscope Company & Ellie Isbill.*

*Lindauer is respected by his peers for being a great team player, willing to share his expertise, plans, activities, and ideas with everyone. He is commended for being a leader among his colleagues district wide. He has been instrumental in redesigning and implementing the Denver Public School's inquiry based biology curriculum. His colleagues characterize him as an excellent example of what every biology teacher aspires to be. Lindauer is described by his students as an exceptional and caring teacher, passionate, encouraging, considerate, and hard working. Students praise him for maintaining an open atmosphere in his classroom, where students are not afraid to ask questions, which encourages them to excel. Lindauer is dedicated to the larger mission of the school and community, providing positive leadership to students in MESA (Mathematics, Engineering, and Science Achievement), National Honor Society, Robotics, C.U. Science Bowl, and the Colorado Science and Engineering Fairs. His extracurricular activities involve rock climbing expeditions, sea camps, and independent research projects with students. Lindauer is especially to be commended for being actively involved in his professional organizations. The continuing education that he takes shows that he has a continued curiosity and a thirst for knowledge.*

*Lindauer's enthusiasm for teaching can be summed up in his own words when he writes, "I have never been more excited at the prospects of teaching biology than now." Kevin Lindauer is an outstanding asset to his school, his community, & his profession.*

# The Colorado Science Conference

is being held Nov 20-21 with all sessions on Friday the 21st. We are still in need of Sessions. The deadline was extended until October 10 for presenters. The registration is also well underway and is closed November 10. After that you will need to stand in line and register ON-SITE and pay \$10 more. We have some outstanding Keynote speakers.

- (1) Michael Klentschy will be a must for elementary and middle school teachers.\
- (2) Brian Ellis will be "Charles Darwin" for our Award Banquet on Thursday evening.
- (3) Doc Gizmo is an outstanding "Science Magic Show" presenter who specializes in elementary and middle school assemblies.
- (4) Winston Luke is a chemist who works for NOAA and will talk about the "Heavy Metals in our Atmosphere".

There will be many exhibitors and sessions to attend. Please tell your science teachers and science friends...

## Register on line NOW!

[www.coloradoscienceconference.org](http://www.coloradoscienceconference.org)

<http://www.coloradoscienceconference.org>

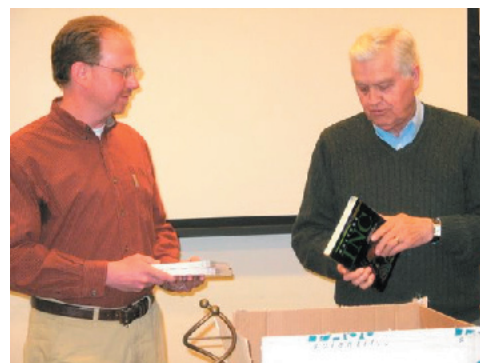


**Kevin Lindauer, 2008 OBTA Recipient** with the OBTA Plaque at the CBTA Spring Seminar, National Jewish Hospital.



Raylene Owen, OBTA Director with Kevin Lindauer after OBTA Award Announcement

Mark Little, CBTA President with Kevin Lindauer at the Spring seminar.



Dan Van Gorp, Spring Seminar Organizer with Kevin Lindauer May 2008

## 2008 Colorado State Science Fair Awards

### Senior Division

**Name:** Nataara Tamada  
**School:** Sierra Grande Junior/Senior High  
**Teacher:** Judy Lopez  
**Title:** *Health Potatoes: Searching for  $\alpha$ -amylase inhibitor and resistant starch in cultivars to lower the glycemic index.*  
**Future Plans:** *Nataara interests are in the fields of music, nursing, and athletic training.*

### Junior Division

**Name:** Wyatt Palsler  
**School:** Otis Junior/Senior High School  
**Teacher:** Mr. Donnelson  
**Title:** *Attack of the Killer Worms: Can entomopathogenic nematodes be used as a bio-control for turf grass grubs of nw Colorado?*  
**Abstract:** *Turf grasses are infected with root-eating grubs and instead of using toxic*  
**Future Plans:** *Wyatt wants to use his good communication skills to start a fishing newsletter, which he hopes to make into a magazine. He is interested in pursuing gene therapy, marine biology, or working at the Naval Research Base in Washington, D.C.*

## 2008 COWY Jr. Academy of Science Awards

### Senior Division

**Name:** Sean Buck  
**School:** Cherry Creek High School  
**Teacher:** T.J. Donahue  
**Title:** *The Mountain Beetle Infestation: Testing oleoresin production inducers.*  
**Abstract:** *Oleoresin, comprised of terpenes,*  
**Future Plans:** *His education plans consist of undergraduate work concentrated in environmental science and aspires to work at the graduate level on either environmental/public policy or environmental research.*

### Junior Division

**Name:** Jonathan Martin  
**School:** Woodlin Middle/High School  
**Teacher:** Jody Romzek  
**Title:** *Ants on the Road*

## CBTA TEACHER GRANT

The Colorado Biology Teachers Association TEACHER GRANT is offered to educators in the Biological Sciences. The goal of this grant is to provide teachers with the equipment to help students with inquiry-based research and make investigative activities more available. The grant is designed to provide teachers with equipment to help you do more hands-on science experiments with your students.

- Two Grants will be awarded in 2008.
- Deadline for application is November 15, 2008.
- Teachers may receive only one grant in a single academic year.
- The maximum award amount is \$500.
- Awards must be used to purchase equipment for student/classroom use. Please see examples of funded equipment listed below.
- We will require you to fill out an evaluation (that we provide) after you use the equipment /materials in your classroom.

**ELIGIBILITY:** This grant is available to CBTA members only

Examples of Items the Grant will fund:

- Balances
- Colorimeter
- Egg incubator
- Equipment for naturalist field studies
- Forensic analysis materials
- Human Anatomy and physiology materials
- Light banks for plant growth investigations
- Micropipettors
- Microscopes
- Water quality test kits
- Other equipment for student research/inquiry investigation

Items that would not be funded

- Fieldtrips
- Computers and most software
- Video or photographic equipment
- T.V./V.C.R.
- Classroom sets of books
- Videos/Videodisks

COLORADO BIOLOGY TEACHERS GRANT APPLICATION

(Please type or print)

Date \_\_\_\_\_

Name of Applicant (s) \_\_\_\_\_

Courses you teach \_\_\_\_\_

Name of School \_\_\_\_\_

Name of District \_\_\_\_\_

Address of School \_\_\_\_\_

\_\_\_\_\_ School phone \_\_\_\_\_

Home Address \_\_\_\_\_

\_\_\_\_\_ Home phone \_\_\_\_\_

Your Email Address \_\_\_\_\_

Amount Requested \_\_\_\_\_ (not to exceed \$500)

Applicant Signature \_\_\_\_\_

(Application Deadline: November 15, 2008)

\*\*All applications must be completed and mailed by the deadline in order to be considered for this years Grant. Please do not fax your application.

Please answer the following questions:

1. Provide a detailed list of the specific materials you are requesting for this grant. Include cost, supplier and types of materials.
2. Describe how these materials will be used by students and how they will benefit your current and future students.
3. The goal of the CBTA grant is to provide equipment for student research. How will your proposal facilitate this goal?
4. How many students will benefit from your proposal? Will other teachers/students have access to the equipment from this grant? Explain.
5. How do you plan to assess the impact of your proposal, evaluate its success?
6. School Profile: \_\_\_\_\_% free/reduced lunch \_\_\_\_\_% minority \_\_\_\_\_% Attendance rate

\*\*All recipients are required to submit a brief, written evaluation (we provide) following use of equipment/materials in your classroom.

# Teacher Workshops and Opportunities

ECOLOGY OF THE PIKES PEAK REGION  
2008 CBTA Fall Workshop

GreenWorks! service-learning grants up to \$5,000 are available to PLT-trained educators at schools and youth organizations for environmental neighborhood improvement projects that involve youth with their community.

The deadline for applications for PLT's second round of funding for this year is October 31, 2008. Visit [http://www.plt.org/cms/pages/21\\_22\\_18.html](http://www.plt.org/cms/pages/21_22_18.html) for grant guidelines, and an application.

Schools, youth organizations, and other groups may apply online for a grant to implement a "learning-by-doing" environmental project that:

- \* partners PLT educators and their students with local businesses or community organizations
- \* combines academics with community service
- \* engages elementary through college-age students in active learning about the environment
- \* provides opportunities for student leadership.

Sample projects include, but are not limited to, outdoor classrooms and gardens, habitat restoration, watershed improvement, energy conservation. To view a list of the GreenWorks! projects previously funded, visit [www.plt.org](http://www.plt.org)

Shwna Crocker

Project Learning Tree Coordinator

Colorado State Forest Service

PO Box 25286

Denver, CO 80225

It's a beautiful Fall morning and we are standing on the shore of Manitou Lake armed with our binoculars and bird checklists. We are ready for anything that might fly by or call out in the distance. It's a good morning for bird watching and as the time goes by we begin to understand why this area is considered one the premier birding areas in the mountains surrounding Colorado Springs. This birding hike led by members of the Aiken Audubon Society was just one of the many activities during the two day CBTA Fall Workshop. Attended by 21 people from throughout Eastern Colorado, this year's workshop took place in the vicinity of Woodland Park on September 13 and 14. Excellent speakers from the Colorado Natural Heritage Program, the Colorado Division of Wildlife and the US Forest Service provided some of the latest information about the plants and animals of the Pikes Peak Region. In addition to the speakers field trips and hands-on field activities were conducted by staff members of the Catamount Institute and the Colorado Wolf and Wildlife Center. One of the highlights of the workshop was a visit to Aspen Valley Ranch on Saturday afternoon where we had the opportunity to experience sustainable growing of fruits and vegetables at high altitude and later that evening to eat some of these same fruits and vegetables at an excellent chuck wagon dinner.

For many in attendance this was their first Fall Workshop, whereas, others have attended the workshops for many years. This workshop is an annual Fall event and through the years has been held in many different places throughout the State. Members of CBTA are encouraged to organize and coordinate a Fall Workshop. If you have specific ideas for a location and activities for the 2009 Fall Workshop e-mail these ideas to one of the CBTA officers or, if you plan to attend this

year's State Science Conference, come to the CBTA Board Meeting Friday afternoon, November 21 to voice these ideas.

Mike Sipes



**Teachers attending the September 2008 CBTA**



**Fall Workshop in Woodland Park., CO**



**Past President:** Jane Ensor; 10000 W. 64th Ave. Arvada, CO 80004; H: (303)420-5075; [gardenerjaney@aol.com](mailto:gardenerjaney@aol.com)

**President:** Mark Little; 1649 Garnet St. Broomfield, CO 80020; H: (303)635-0716; [mark.little@bvsd.org](mailto:mark.little@bvsd.org)

**President Elect:** Marilyn Schmidt; 16489E. Berry Ave. Aurora, CO 80015; H: (303)766-4005; [schmidt.mac@gmail.com](mailto:schmidt.mac@gmail.com)

**Vice Pres:** Cindy Gay; P.O Box 772822; 402 Pine Steamboat Sprs, CO 80477; H: (970)879-2181; [cgay@sssd.k12.co.us](mailto:cgay@sssd.k12.co.us)

**Treasurer:** Kathleen Jones; 601 Locust St. Windsor, CO 80550; H: (970) 686-7325; [kathleen.jones@unco.edu](mailto:kathleen.jones@unco.edu)

**Secretary:** Michelle Gallagher; 6261 Arbor Ave. Littleton, CO 80123; H: (303)734-0134;

**District 1: (Denver City and County)** Lara Kenzy; 2870 S. Logan St. Englewood, CO 80113; H: (720)272-2898; [lara5262001@yahoo.com](mailto:lara5262001@yahoo.com)

**District 2: (NW suburbs Boulder, Gilpin, Clear Creek Co.)** Jane Ballard; 8786 Yellowstone Rd. Longmont, CO 80503; H: (303)772-7122 [ballardj@thompson.k12.co.us](mailto:ballardj@thompson.k12.co.us) ; [janeballard\\_3@hotmail.com](mailto:janeballard_3@hotmail.com)

**District 3: (Northern 2/3 of western slope)** Denise Kipp; PO Box 3154 Eagle, CO 81631; H: (970) 376-4395; [dkipp@eagleschools.net](mailto:dkipp@eagleschools.net)

**District 4: (Northeast CO)** Marguite Yowell; 38447 County RD 24, Hugo, CO 80821; H: (719) 743-2126; [myowell@genoa-hugo.k12.co.us](mailto:myowell@genoa-hugo.k12.co.us)

**District 5: (El Paso County, Central CO)** Dorie Walker; 12875 W. 23rd Golden ,CO 80401; H: (303) 237-5906; [dwalker@jeffco.k12.co.us](mailto:dwalker@jeffco.k12.co.us)

**District 6: (West, South, East Suburban)** Marilyn Achten; 2868 S. Espana Ct. Aurora, CO 80013; H: (303) 627-2879; [miachten@aps.k12.co.us](mailto:miachten@aps.k12.co.us)

Current CBTA Members: If your email has changed, or if you would like updates on current biology related happenings by email. please take a moment and send your email address to Kathleen. That will help us update records, and give you news or bulletins as soon as they are available. We will not be giving this information out to other organizations or vendors. This will just be for CBTA members only, and will be used sparingly. Thank you!  
[kathleen.jones@unco.edu](mailto:kathleen.jones@unco.edu)

Name \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Home phone(\_\_\_\_\_) \_\_\_\_\_

Preferred email \_\_\_\_\_

School (Employer) \_\_\_\_\_

School (Work) Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Work phone(\_\_\_\_\_) \_\_\_\_\_

Amount Enclosed\$ \_\_\_\_\_ Make your check payable to CBTA.

**CBTA DUES**

1yr \$7.50

3 yr 18.00

Student 4.00

Retired 4.00

Circle your membership choice above.

Mail to:

Kathleen Jones  
601 Locust St  
Windsor , CO 80550  
(970) 686-7325

[kathleen.jones@unco.edu](mailto:kathleen.jones@unco.edu)



# Newsletter Deadlines

Copy material to Editor	Publication Dates
Spring	March 10th
Fall	September 10th
Winter	December 10th



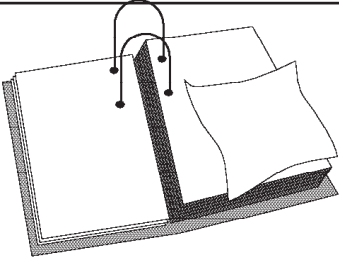
Sally Swartz, Editor  
 CBTA Newsletter  
 4328 S. Alton St.  
 Englewood, CO 80111  
 (303) 220-0955  
 seswartz49@earthlink.net

Bio Babe Editor Assistants  
 from Cherry Creek High School  
*Lynn, Sally, Pat Raylene & Dan*

Visit our website at:  
<http://www.colobiota.org>

2008 DATES TO REMEMBER

MARK YOUR CALENDARS!



**2008**

Oct. 15-18.....NABT Conference  
 Memphis, TN

Nov 20-21.....CO Science Convention  
 Denver Merchandise Mart

2009




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CBTA NEWSLETTER Fall 2008  
 COLORADO BIOLOGY TEACHERS' ASSOCIATION  
 601 Locust St  
 Windsor , CO 80550



Address Correction Requested