



Kansas Association
of
Biology Teachers
Newsletter

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

Volume 47 Number 2 – Fall 2006

Events Calendar for biology teachers, biologists & naturalists in Kansas

22-23 Sept 2006	KABT fall meeting, Cowley Community College, Arkansas City, KS
23 Sept 2006	KWF/GPNC National Hunting & Fishing Day event, GPNC, Wichita KS
29 Sept-1 Oct 2006	Kansas Ornithological Society annual meeting, Southwestern College, Winfield KS
7 Oct 2006	Kansas Chapter-The Wildlife Society, Ft Riley KS
7-8 Oct 2006	Kansas Herpetological Society fall field trip, Pottawatomie Co., KS
11-14 Oct 2006	National Assn. of Biology Teachers annual convention, Albuquerque NM
13-15 Oct 2006	Central Plains Society of Mammalogists, Univ. Central Oklahoma, Edmond OK
3-4 Nov 2006	Kansas Assn. of Conserv. & Environ. Ed annual meeting, Pittsburg KS
3-5 Nov 2006	Kansas Herpetological Society annual meeting, Ft Hays State University, Hays KS
4-5 Nov 2006	Kansas Speleological Society fall meeting, Alabaster Caverns St Park, OK
7 Nov 2006	ELECTION DAY
12 Nov 2006	Kansas Citizens for Science annual meeting, City/County library, Topeka KS
January 2007	Kansas Chapter-American Fishery Society annual meeting w/IA&NB, Omaha NB
13 Jan 2007	KABT winter board meeting, Camp Williamson, Venango KS
5-7 Feb 2007	Mid-continent Warmwater Fish Culture Workshop, Overland Park KS
9-10 Feb 2007	KS Wildlife Fed. annual meeting & CAP banquet, Holidome, Manhattan KS
19-23 Mar 2007	Spring Break for Kansas Regents Schools
20-22 March 2007	KS Assn. of Teachers of Science-KAMP, Rock Springs 4-H Ranch, Junct. City KS
13-14 April 2007	Kansas Academy of Science annual meeting, Holiday Inn, Salina KS
27-29 April 2007	Wings-n-Wetlands festival, Great Bend KS
3-6 May 2007	2nd. Triennial International Mosasaur Meeting, Sternberg Museum, Hays KS
2 June 2007	Kansas Assn. of Biology Teachers spring field trip meeting
22 Sept 2007	Kansas Assn. of Biology Teachers annual meeting
6-10 Nov 2007	National Assn. of Biology Teachers annual convention, Atlanta GA

For anyone interested in acronym explanation and/or further information, please contact Stan Roth <sdroth@ku.edu>. Also contact S.R. if you have other calendar events of interest to KS biology teachers, naturalists & biologists.

Use Pluto's dwarf status to think big

Here's a chance to learn from science that keeping our mind open is the best way to know the universe.

BY JEFFRY MALLOW AND STEVEN LUBET

August 28, 2006

Now that the International Astronomical Union has demoted Pluto from full-fledged planet to dwarf, we may expect more heartfelt protests from schoolchildren, whose earlier letter-writing campaigns did much to bring the controversy to public attention in the first place.

It seems that kids love Pluto (both the planet and the Disney dog), and that schoolteachers have capitalized on that affection, using it to spur lessons in civics and composition. After all, if scientists can vote on nature, why shouldn't ordinary people lobby for the decision they want (or to reverse a decision if they don't like it)?

But science is not democratic, and children are taught exactly the wrong lesson when they are encouraged to defend Pluto's planetary status.

By its nature, science continually submits long-held ideas to critical investigation and eventual revision, usually by consensus and sometimes by formal vote. But the process is nothing like political voting. Confronted with a mass of data, scientists try to make sense of it by establishing theoretical categories.

Almost inevitably, nature eventually strikes back by revealing new data that call these categories into question. In biology, for example, species definitions based on morphology (crudely, appearance) and behavior held sway until new measurement tools forced a redefinition of categories. In obvious cases, the similar appearance of chimps and humans, as compared to, say, snails, was confirmed by DNA analysis. On the other hand, the simple categorization of mushrooms as plants (they don't move) and bacteria as animals (they do) proved to be quite wrong. In physics, the theoretical division of matter into particles and waves worked fine - until new experiments showed that the lines were blurred. Thus quantum physics was born.

It is at that point, when nature says 'No,' that scientists argue and advocate - and sometimes vote - to revise and refine their theoretical categories to account for nature's new revelations. And that's what has happened with poor Pluto. The category "planet," which worked fine for the first eight, never quite fit Pluto: Its orbit was not in the same approximate plane of the others; its size kept shrinking, based on better and better measurements, until it was recognized as smaller than some asteroids and a host of other objects in the distant Kuiper belt; and - the final nail - its orbit crossed over that of another planet's, Neptune. So the scientific vote on Pluto was simply necessary to correct old errors on the basis of new facts.

And that brings us back to the children's crusade. Although they are no doubt motivated by the best intentions, teachers do their students a disservice when they rally them behind Pluto's cause. In fact, they are undermining serious educational goals

by suggesting that popular sentiment can, or should, sway science. That is the sort of thinking that leads left-wing deconstructionists to claim that science is merely a "white male Eurocentric social construction," in effect a conspiracy to "privilege" science above other "ways of knowing." It also leads the intelligent design advocates on the radical right to believe that the biology curriculum should be determined by school board elections, rather than by, well, biology. Rather than complain about Pluto's demotion, teachers should take this opportunity to educate their children about the scientific method, and how it forces scientists to keep an open mind. In a world of increasingly polarized opinions and dogmatic "truths," it is truly wonderful to see scientists engage in a process of open re-evaluation. Now, if we could only get politicians to do the same thing.

Copyright (c) 2006, Newsday

World Water Monitoring Day

From September 18th - October 18th you have an opportunity to be a part of World Water Monitoring Day (WWMD).

World Water Monitoring Day is an international event designed to encourage organizations, student groups, and the citizens all over the world to test waters in their area.

Volunteers can test waters with kits available through KDHE or www.worldwatermonitoringday.org. The kits provide the testing tools for four key indicators of watershed health: temperature, pH, dissolved oxygen, and turbidity. Your or your group will have the opportunity to enter your monitoring results on-line at www.worldwatermonitoringday.org to provide and view a global snap shot of water quality.

In 2003, Kansas ranked 8th in the country for most monitoring sites registered. In 2004 and in 2005, Kansas ranked 4th in the country. In 2006, Kansas is aiming to rank first in the country for most registered monitoring sites.

The Kansas Department of Health and Environment is participating in the program by recording our own monitoring information on-line and serving as Kansas' contact agency. We are available to assist in any events you may wish to schedule and are offering free test kits to persons able to test 10 sites during the monitoring period, September 18 - October 18. To participate or to obtain additional information please visit the world monitoring day website or contact Jaime Gaggero, Bureau of Water, 296-5579.

Jaime Gaggero
Environmental Scientist
KS Department of Health and Environment
Watershed Management Section
785-296-5579
1000 Jackson
Topeka, KS 66612

Track Migrating Monarchs

Steve Case - <http://pathfinderscience.net/monarch>

It is fall and the Monarchs are on the move! With your help we will map the Monarch migration as it passes through the U.S. During the fall Monarch migration, fill out the form (<http://pathfinderscience.net/monarch/wave/#wavedef>) on the web site to send in your report. You do not have to be a registered PathFinder Science teacher to participate. Just go outside and let us know what you see. This project is open to all!

Identifying a Monarch migration

For our purposes, fall migration is easy, however it is **very important that you only report the first time you see one of these two behaviors (below) in the fall!** Be watching and look for and report only the first time you observe these two behaviors in the Monarchs! A migratory monarch can be identified in one of two ways:

1. *Flight over line of sight* - One or more monarchs flies in a straight line direction for at least 100 feet (ten seconds or more) in a southwest direction.
2. *Small group* - Five or more monarchs flying in a Southwest direction (straight line) or roosting together at any one time

Using an advanced mapping technology, we will add your data to your fellow researchers' data and map the results! The more people who submit data, the more accurate (and colorful) the map will be. In the entire world, no butterflies migrate like the Monarchs of North America. They travel much farther than all other tropical butterflies, up to three thousand miles. They are the only butterflies to make such a long, two way migration every year. Amazingly, they fly in masses to the same winter roosts, often to the exact same trees. Their migration is more the type we expect from birds or whales. However, unlike birds and whales, individuals only make the round trip once. It is their children's grandchildren that return south the following fall. This exciting organism leads us to ask a lot of very interesting questions - like how do they make this incredible migration?

Where is the Migration Now?

You will be able to return to this page at any time to see the current monarch progression map as well as all past years maps. To help create the map, we need three pieces of information from you: where, when, and what you identified.

Real-time monarch wave map

(<http://pathfinderscience.net/maps/monarchwave>) - This map will update automatically as citizens, schools, classrooms and other researchers add their observation data.

Difficult Dialogues at The Commons Lecture Series

<http://www.news.ku.edu/2006/july/31/difficultdialogues.shtml>

LAWRENCE — The Commons, a new venture involving the University of Kansas' Hall Center for the Humanities and Biodiversity Institute, announces the first in what will become an occasional lecture series designed to foster informative and civil dialogue on difficult and volatile issues in American society. The inaugural series of lectures and informal discussions takes as its theme the proper roles of reason and faith in the human enterprise.

Throughout the fall semester, six distinguished speakers, many of whom played active roles in the landmark Dover, Pa., intelligent design case, will present divergent views on the relationship between science and religion in today's world. In addition, each speaker is slated to participate in an audience-guided dialogue on the morning following the formal lectures. The series concludes with a panel discussion on "Knowledge: Faith & Reason" featuring local leaders from the university and state.

The Commons will investigate the intersection of nature and culture in shaping the human condition and generate collaboration in research and education across traditional academic disciplines in the sciences, arts and humanities. Located in Spooner Hall, The Commons will be a place and catalyst for bold, unconventional thinking, interdisciplinary inquiry and creative dialogue for people and communities with different frames of reference.

All events in the "Difficult Dialogues at The Commons" series are free and open to the public. All lectures will begin at 7:30 p.m., and the additional dialogues will begin at 10 a.m. on the morning following the lectures in the Hall Center Conference Hall.

Kenneth Miller, a professor of biology at Brown University, will speak about "God, Darwin, and Design: Creationism's Second Coming" on Sept. 7 in the Kansas Union Ballroom. Miller, the author of *Finding Darwin's God: A Scientist's Search for Common Ground Between God and Evolution* and co-author of several high school textbooks, has argued that science and religion are not mutually exclusive.

John E. Jones III, judge of the U.S. District Court for the Middle District of Pennsylvania, will discuss "Judicial Independence and *Kitzmiller v. Dover, et al*" on Sept. 26. In this landmark case, Jones ruled that the school district's mandate requiring the teaching of intelligent design in science classrooms was unconstitutional in that it violated the Establishment Clause of the First Amendment. The lecture will take place in Woodruff Auditorium in the Kansas Union.

On Oct. 3, Os Guinness will speak about "A World Safe for Diversity: Living With Our Deepest Differences in an Age of

Exploding Pluralism" in Woodruff Auditorium. Guinness, a theologian and co-founder of the Trinity Forum, has written or edited more than 30 books. His major concern is to bridge the chasm between academic knowledge and popular knowledge, taking things that are academically important and making them intelligible and practicable to a wider audience, especially as they concern matters of public policy.

Appearing jointly in the Humanities Lecture Series, Richard Dawkins will discuss "The God Delusion" on Oct. 16 at the Lied Center. Dawkins, the Charles Simonyi Professor of the Public Understanding of Science at Oxford University, is an internationally renowned evolutionary biologist, atheist and author of numerous bestsellers, including *The Selfish Gene*, *The Blind Watchmaker* and *The Ancestor's Tale*. His newest book, bearing the same title as this lecture, is scheduled to appear in the fall.

Eugenie C. Scott, the executive director of the National Center for Science Education, will appear on Nov. 16 in the Kansas Union Ballroom. Her lecture, "Faith, Reason, and Assumption in Understanding the Natural World," will be drawn from her experience directing a nonprofit organization that seeks to

protect the theory of evolution in science classrooms while excluding the teaching of creationism or intelligent design. Scott's book, *Evolution v. Creationism: An Introduction*, was published in 2004.

Michael Behe, author of *Darwin's Black Box: The Biochemical Challenge to Evolution*, will discuss "The Argument for Intelligent Design in Biology" on Nov. 30 in the Kansas Union Ballroom. A professor of biology at Lehigh University, Behe argues that biochemical living organisms are irreducibly complex and therefore inexplicable by science in general and Darwin's theory of evolution in particular.

To conclude the series, a panel discussion titled "Knowledge: Faith & Reason" will convene at 3:30 p.m. Dec. 7 in the Hall Center Conference Hall. Panelists will be Sue Gamble, a member of the Kansas State Board of Education; Scott Jones, bishop of the United Methodist Church, Kansas Area; Richard Lariviere, KU provost and executive vice chancellor; Derek Schmidt, Simons Public Humanities Fellow and majority leader in the Kansas State Senate; and Edward O. Wiley, professor and senior curator in the KU Department of Ecology and Evolutionary Biology.

KABT Membership Application or Renewal Form—ONLY USE CURRENT NEWSLETTER FORM!

Name: _____

(Mr.-Mrs.-Ms.-Dr.-Miss) First Name Last Name

Mailing Address: _____

City: _____ County _____ State: _____ Zip: _____ - _____

School/Institution: _____

Position: _____

City: _____ State: _____ Zip: _____ - _____

Phone: Work (____) _____ - _____ Home: (____) _____ - _____

FAX: (____) _____ - _____ Email Address: _____@_____

Enclosed Dues For KABT **\$15 / Year (\$5 Student)**—Life Membership Available For **\$300**

National Association of Biology Teacher Dues: \$65.00 / Year

Dues Payment For Next Year Must Be Received Between Dates Of June 1st to September 30th

Dues Received On Dates Preceding June 1st Or After September 30th Will Be Applied To Current Year

Make Check Payable To KABT - Tax ID #: 48-0945206

Send Dues & Information To:

Kansas Association of Biology Teachers

18261 W. 157th Terrace

Olathe, KS 66062

CONSTITUTION AND BYLAWS OF THE
KANSAS ASSOCIATION OF BIOLOGY TEACHERS

Adopted 19 September 1981

Effective 5 June 1992

Effective 21 September 1996

Article I. Name

Section 1. The name of this organization is the "Kansas Association of Biology Teachers," hereafter referred to as the "KABT".

Article II. Purpose

Section 1. To encourage education in biology and dissemination of biological information through the facilities of the KABT.

Section 2. To achieve closer cooperation and understanding between biologists and non-biologists, so that they may work together in the common cause of furthering biological education.

Article III. Bylaws

The KABT shall establish bylaws concerning the organization and procedures to be followed.

Article IV. General Prohibitions

Notwithstanding any provision of this Constitution or the Bylaws which might be susceptible to a contrary interpretation:

1. the KABT shall be organized and operated exclusively for scientific and educational purposes;
2. no part of the net earnings of the KABT shall or may under any circumstances inure to the benefit of any private shareholder or individual;
3. no substantial part of the activities of the KABT shall consist of carrying on propaganda, or otherwise attempting to influence legislation;
4. the KABT shall not participate in, or intervene in (including the publishing or distribution of statements), any political campaign on behalf of any candidate for public office;
5. the KABT shall not be organized or operated for profit;
6. the KABT shall not:
 - a. lend any part of its income or corpus, without the receipt of adequate security and a reasonable rate of interest;
 - b. pay any compensation, in excess of a reasonable allowance for salaries or other compensation for personal services actually rendered;
 - c. make any part of its services available on a preferential basis;
 - d. make any purchase of securities or any other property for more than adequate consideration in money or money's worth from;
 - e. sell any securities or other property for less than adequate consideration in money or money's worth from;
 - f. engage in any other transaction which results in a substantial diversion of its income or corpus to; any officer, member, or substantial contributor to the organization.

The prohibitions contained in this subsection 6, do not mean to imply that the organization may make such loans, payments or sales to or purchases from anyone else, unless such authority be given or implied by other provisions of this Constitution or Bylaws.

Article V. Distribution on Dissolution

Upon dissolution of the KABT, the Executive Council shall distribute the assets and accrued income to one or more organizations as determined by the Council, which organization or organizations shall meet the limitations prescribed in subsections 1 to 6 inclusive, of Article IV immediately preceding.

Article VI.

The constitution may be amended by two-thirds of the membership by mail vote.

BYLAWS

Article I. Members

Section 1. Membership in the KABT shall be open to all persons who shall make formal application and pay the prescribed dues.

Section 2. The Executive Council shall have the right to refuse any new member or to terminate the membership of an existing member for cause and without prior notice. However, a terminated person may appeal to the general meeting of the KABT.

Section 3. **LIFE MEMBERSHIP.** A person may become a life member of KABT by making a one-time dues payment equal to twenty (20) times the current yearly dues. (Annual dues for the KABT are presently \$10.00, so a lifetime membership now would cost \$200.00.)

Article II. The Officers

Section 1. The officers of the KABT shall be of two kinds, elective and appointive.

- a. The elected officers shall be President, President-elect, Vice-President, Secretary, Treasurer, six Regional Representatives, and two at-large Representatives.
- b. The appointed officers shall include the Editor of the KABT Newsletter and the Historian.

Section 2. No one individual may hold two or more elective offices concurrently.
 Section 3. The terms of office for the President, President-elect, Vice-President, Secretary, Treasurer, six Regional Representatives, and two at-large Representatives shall be for two years.

Section 4. The duties of the elective officers shall be as follows:

- a. The President shall preside at meetings of the KABT and its Executive council; shall be the nominal head of the KABT; shall rule on questions of procedures that may arise; and shall appoint standing and ad hoc committees as needed; and shall be the liaison with the coordinator of the annual meeting.
- b. The President-elect shall fulfill the duties of the President when the latter is absent; shall succeed the President at the termination of the latter's term; and shall assume Presidency should that office become vacant during a term.
- c. The Secretary shall maintain the records of the KABT and its Executive council; shall notify the membership of the KABT of pertinent business; shall be responsible for all general correspondence of the KABT;
- d. The Treasurer shall keep financial records and accounts of the KABT including all monies received and disbursed; shall receive the annual dues; and shall be responsible for all financial reports required by the business of the KABT. The Treasurer shall be responsible for an annual audit of KABT monies.
- e. The Regional Representatives shall serve as members of the Executive Council.
- f. The Vice-President shall serve as a member of the Executive Council.

Section 5. All records and implements of office shall be turned over by an officer to his successor immediately subsequent to the latter's assumption of the office.

Section 6. The duties of the appointive officers shall be as follows:

- a. The Editor of the KABT Newsletter shall be responsible for all phases of publication and may appoint staff members to assist. In general, the Editor shall be obligated to implement the stated objectives of the KABT. The Editor is responsible for reporting annually to the Executive Council. Inasmuch as the Newsletter is the principal mechanism for written communication to the membership, the Editor is obligated to publish all communications of the KABT and its Executive Council on first priority and to include, as space permits, other items consonant with the stated objective of the KABT.
- b. The Historian shall serve as a consultant, archivist, historian, and shall assist the Executive Council as necessary.

Section 7. **PAST PRESIDENT.** The outgoing president shall assume the office of Past President. The Past President shall serve on the executive council as a voting member for one election term or until succeeded by the next outgoing president.

Article III. Executive Council

Section 1. The Executive council shall consist of the President, Past President, President-elect, Vice-President, Secretary, Treasurer, six Regional Representatives, and two at-large Representatives.
 Section 2. The Executive Council shall be empowered to manage the affairs of the KABT and to designate all appointive officers for terms of one year.
 Section 3. The Executive Council shall fill any vacancy occurring among the officers, except that of President, by an appointment for the unexpired term.

Article IV. Elections of Officers

Section 1. The President shall appoint three members of the KABT to serve as a nominating committee, except that not more than one member of the Executive council may be appointed to the committee in any one year.
 Section 2. The Nominating committee shall present a slate of two candidates for each office to be filled when possible, The slate must be presented at the annual meeting, at which time nomination may be made by the membership.
 Section 3. The Nominating Committee, or a member of the KABT proposing a nominee, shall obtain the consent of the candidate to serve if elected.
 Section 4. The President shall appoint an Elector from among the membership who will count the vote.
 Section 5. Officers shall be elected by a majority vote of the membership at the annual meeting.
 Section 6. Newly elected persons will take office on the first of January of the year following the election.

Article V. Meetings

- Section 1. The KABT shall hold an annual meeting and an annual field trip at a time and place set by the Executive Council, except when this is contrary to the national interest. Not more than 18 months shall elapse between meetings.
- Section 2. The membership shall be informed of the time and place of the meeting not later than one month prior to the meeting.
- Section 3. One-tenth of the membership shall constitute a quorum of the KABT at any meeting.
- Section 4. Special meetings may be called by vote of a majority of the Executive Council, or on petition of a quorum of the membership. The time and place of such special meetings must be announced to the membership prior to the meeting.
- Section 5. All meeting shall be conducted under Robert's Rules of Order (Revised).

Article VI.

Meetings of the Executive Council.

- Section 1. The Executive Council shall meet at least once a year on the occasion of the annual meeting of the KABT.
- Section 2. Any meeting of the Executive council shall be open to attendance by interested members of the KABT unless the Executive council moves for Executive Session.
- Section 3. A simple majority of the Executive Council shall constitute a quorum.
- Section 4. A majority of those present and voting shall be necessary to pass any motion.
- Section 5. The meeting shall be conducted according to Robert's Rules of Order (Revised).
- Section 6. Special meetings of the Executive Council may be called by the President or by a majority of the Council.

Article VII.

Dues

- Section 1. The Executive council shall be authorized to establish such dues as are compatible with the financial status of the KABT.
- Section 2. A member in arrears for payment of dues for a period of six months shall be dropped from the membership roll.

Article VIII.

Fiscal Year

- Section 1. The fiscal year of the KABT shall embrace the period from 1 January of any year through 31 December of the same year.

Article IX.

Amendment of Bylaws

- Section 1. Amendments may be proposed by the Executive Council or by petition to the Secretary by ten or more members of the KABT.
- Section 2. Proposed amendments must be in writing to the Secretary one month before the meeting at which they are to be discussed.
- Section 3. Such amendments shall be submitted in writing by the Secretary to the general membership at least two weeks prior to the meeting at which they are to be discussed.
- Section 4. To be approved, an amendment must receive a positive vote by two-thirds of those voting at the meeting.
- Section 5. Any adopted amendment shall become an integral part of the Bylaws and the Secretary shall be instructed to add them to copies of the Bylaws and to **distribute** the amended Bylaws to the members of the Executive Council and to other interested members of the KABT.

Prepared by Joseph T. Collins - January 1981

Modified 6/5/92 (Life Membership and Past-President)

Modified 9/21/96 (Article II, Section 1, a, b.; Section 3; Section 6, b; Article III Executive Council, Section 1)



KABT at KATS KAMP 2006

Sandy Collins leads activities from Shoestring

Biotechnology, even a beano lab!



Randy Dix teaches the finer points of tying flies.



Lisa Volland excites the crowd with “cool” biology mini labs.



Shari McDougal, Josie Stiles, Tiffany Richards attempt to instruct the most difficult of students about DNA “Bling”.

If you have pictures of biological interest from your classroom or conferences, send to editor at pwakeman@mail.tong464.k12.ks.us

tion of Biology Teachers atives - Board Members

67905-1137
todd.carter@sccc.edu

rdixon@olatheschools.com

President

Todd Carter
Box 346
Forgan, OK 73938
(580) 487-3547
Seward County Community
College
Box 1137 Liberal, KS

President-Elect

Randy Dix
12115 S. Walnut St.
Olathe, KS 66061
(913) 782-2984
Olathe North High School
(913) 780-7140

Past-President

Sandy Collins
2444 Wellman Rd
Lawrence, KS 66044
(785) 841-2375
West Junior High School
2700 Harvard
Lawrence, KS 66049

(785) 832-5500
scollins@usd497.org

Treasurer

Paula Donham
18261 W. 157th Terr.
Olathe, KS 66062
(913) 558-7470
Olathe East High School
(913) 780-7120
Pdonhamoe@olatheschools.com

Secretary and Newsletter Editor

Pat Wakeman
24549 Sandusky Rd.
Tonganoxie, KS 66086
(913) 845-3208
Tonganoxie High School
404 E. 24/40 Highway
Tonganoxie, KS 66086
(913) 845-2654
FAX (913) 845-3716
pwakeman@mail.tong464.k12.ks.us

Region 1 Representative

Open

Region 2 Representative

Pat Lamb
3014 Sunnyside
Manhattan, KS 66502
(785) 776-1438
Manhattan High School
2100 Poyntz

Manhattan, KS 66502
(785) 587-2100 Ext. 802
Patl@manhattan.k12.ks.us

Region 3 Representative

John Tollefson
24015 Loring Road
Lawrence, KS 66044
(785) 749-3280
Tonganoxie Junior High School
404 E. 24/40 Highway
Tonganoxie KS, 66086
Jtolllefs@mail.tong464.k12.ks.us

Region 4 Representative

Rafe Begley
911 South Harrison
Hugoton, KS 67951
(620) 544-4311
Hugoton High School
215 W. 11th
Hugoton, KS 67951
(620) 544-4311
Rbegley@pld.com

Region 5 Representative

Bill Welch
100 Maplewood
Mulvane, KS 67110
Mulvane High School
1900 N. Rock Road
Mulvane, KS 67110
(316) 777-1183

Bwelch@usd263.k12.ks.us

Region 6 Representative

Open

Representative At Large

Open

Journal Editor

John Richard Schrock
1101 W. 18th Avenue
Emporia, KS 66801
(620) 342-3879
Emporia State University Dept. of
Biological Sciences
Box 4050
Emporia, KS 66801
(620) 341-5614
FAX (620) 341-5997
ksnaturl@emporia.edu

NABT Liason

Brad Williamson
Olathe, KS 66061
(913) 764-6036
Bwilliamson@comcast.net

KABT Historian

Stan Roth
532 Oklahoma St.
Lawrence, KS 66046
(785) 843-4764
sdroth@ku.

KABT Fall Conference
Cowley County Community College
September 23, 2006

8:30 – 9:00
9:00 – 9:15
9:15 – 10:15

Registration / Galle-Johnson Hall Rm201

Welcome and Introductions

Session I

Room 211 – Using Real World Data and Laboratory Experiments to Investigate the Greenhouse Effect - Dr. Rick Cowlshaw (Southwestern College)

Room 212 – Biotech Inclusion - Don Bell (OKC Community College)

10:15 – 10:30

Break

10:30 – 11:30

Session II

Room 211 – Dragonflies and Damselflies - Roy Beckemeyer

Room 212 – Active Learning Approaches for Teaching the Surface Area/Volume Concept - Dr. Patrick Ross (Southwestern College)

11:30 – 12:30

Lunch – KABT meeting (Patrick J. McAtee Dining Center)

1:00 – 3:00

Chaplin Nature Center

Presenter Information:

Roy Beckemeyer: Dragonflies and damselflies are neat and interesting insects that have been flying in Kansas since the Permian era. Roy Beckemeyer has been studying living and fossil dragonflies for many years, and is immediate Past-President of the Dragonfly Society of the Americas. He has published both general and technical papers about dragonflies, and is the author of Kansas School Naturalist issues on dragonflies, damselflies and the fossil insects of Elmo, Kansas

Dr. Rick Cowlshaw: Using Real World Data and Laboratory Experiments to Investigate the Greenhouse Effect
This set of exercises allows students to approach the greenhouse effect and global warming from a scientific approach. Students will be allowed to examine trends in global climate data while also getting exposure to graphing techniques as well as distinguishing between correlation and causation. From this data, students will develop hypotheses related to the greenhouse effect that will be tested experimentally in an inexpensive manner in the laboratory setting. This exercise gives students an opportunity to move through the scientific method as they engage the topic of global climate change.

Dr. Rick Cowlshaw is Assistant Professor of Biology at Southwestern College. Dr. Cowlshaw received his Ph.D. in biology from the University of Oregon while studying food web dynamics and energy flow in a marine plankton community. Dr. Cowlshaw received his B.S. in biology from Oregon State University.

Dr. Patrick Ross: Active Learning Approaches for Teaching the Surface Area/Volume Concept

The mathematical relationship between surface area and volume is an important constraint in the evolution of biological structures, helping to explain broad patterns in anatomy and physiology. Unfortunately, even mathematically adept students often fail to understand its significance. This workshop will introduce a variety of active learning exercises that have been found to be helpful in bringing a “gut-level” understanding of this concept to students.

Dr. Ross is Associate Professor of Biology and Chair of the Division of Natural Sciences and Mathematics at Southwestern College. Dr. Ross received his Ph.D. in the Biological Sciences at the University of California Santa Barbara while studying mating behavior in the Trinidadian guppy. His undergraduate degree in Zoology is from the University of Wisconsin-Madison.