PRELIMINARY AGENDA AMCBT MEETING

Thursday, September 28 Evening Sessions

6:00-8:00 p.m.
Registration/Reception
Meet your colleagues and share refreshments

8:00 p.m.
Welcome for AMCBT
Jeanene Yackey, Program Chairperson
Fontbonne College, Missouri

Welcome to Quincy College
Representative of Quincy Administration

Opening Session
Environmental Awareness: Why Save the Environment?
John Carlock

9:30 p.m.-?
Informal Social and Cash Bar

Friday, September 29 Morning Sessions

7:00 a.m.
Registration

7:30-8:30 a.m.
Buffet
Breakfast/Interest Groups
(Organized by Disciplines; price included in registration fee)

8:30-9:15 a.m.
Concurrent Sessions
Various Locations

The Compass Plant: Aldo Leopold Revisited
James Holler
University of Wisconsin-Platteville

The compass plant or cutleaf Silphium will be used to illustrate and emphasize
Leopold's thoughts concerning the floristic, aesthetic and social losses that result from
the removal of the native flora. Slides of the compass plant from various parts of the
country will be shown.
The Use of Cellulose Acetate Film for the Production of Epidermal Casts of Leaves
Leland Hansen
Highland College
This technique permits students to observe features of a plant's epidermis such as
distribution and nature of guard cells, epidermal hairs and glands. It can also be used
to assess taxonomic similarity or confirm hybridization in some instances. Stomate
distribution can be correlated with ecological studies. Use of live plant material
provides more interest than using prepared slides.

How Can We Stimulate Interest in the General Biology Student
Ben Dolbeare (Tentative)
Lincoln Land Community College
Moderator of Panel

10:15-11:00 a.m.
Concurrent Sessions
Various Rooms

Escherian Esthetics of Pretty Pictures in the Plane: Scale Independence in
Biological Patterns
John R. Jungck
Beloit College
I will demonstrate six different techniques for studying planar patterns such as
epithelial cell boundaries, fish boundaries on sandy lake bottoms, and cross-sections of
leaves as well as two-dimensional projections of three dimensional patterns such as the
packing of side chains in polypeptides, bird territories, and forest canopies. The
famous Dutch artist, Escher, dealt with symmetrical tessellations and his art has greatly
intrigued numerous biologists. The techniques that I will discuss handle asymmetric as
well as symmetric patterns. These techniques range from elementary school
mathematics to contemporary research in modern mathematics; however, the esthetic
motivation is the primary one and I promise to show lots of pictures and biological
applications. Pedagogically, multiple ways of knowing and isomorphism of various
approaches will be emphasized.

Computer Generated Codons
James Waddell
University of Minnesota
Learn about a simple computer program to represent mRNA molecules. Students
use the "strands" and translate the molecules. This makes a suitable review of protein
synthesis and an introduction to mutations and the significance of redundancy in the
遗传 code.
Come and share your ideas using computer programs to illustrate concepts.

11:15-12:30 p.m.
Keynote Address
Friday, September 29 Afternoon Sessions
Concurrent Workshops and Field Trips

12:30-2:00 p.m.
Open Lunch
Exhibits

1:00-6:00 p.m. FIELD TRIPS
(Sack lunches provided??)

1:15-4:45 p.m. WORKSHOPS

BioQUEST
John R. Jungck
What is BioQUEST? BioQUEST (Quality Undergraduate Simulations and Tools in Biology) is a Biology Curriculum based upon Problem-Posing, Problem-Solving, and Persuasion. BioQUEST is committed to learning how to do modern biological research, not towards classical undergraduate textbook materials. BioQUEST is committed to cooperative, group learning rather than individualistic competition. BioQUEST is a library of Modules integrated via a Labbook not simply a collection of simulations and tools. BioQUEST is Multi-level (i.e., freshmen and upper division courses may find BioQUEST materials of considerable interest). BioQUEST is constructed by a cooperative of biology educators not authors under short-term contract. BioQUEST is Dynamic not Static. Nine Macintosh BioQUEST software applications will be moving into the Beta-test stage this fall and will be available for trial in the workshop: Genetics Construction Kit, Microbial Genetics Construction Kit, Isolated Heart Lab, Sequencel!, PurifyIt!, Systems Modelling, AXON, EVOLVE, and Environmental Decision Making. Ideas for the use of other Macintosh software and other teaching, lab, and field situations to implement the 3P's pedagogical philosophy will be explored in group discussion.

ZPG Workshop (Tentative)
Loren Denny
Southwestern Missouri State

Respiration Therapy
Albert Gordon
Southwestern Missouri State

Friday, September 29 Evening Activities

6:00-8:00 p.m.
Cash Bar Social

8:00 p.m.
Dinner
President's Address
Saturday, September 30  Morning Sessions

7:30-9:00 a.m.
Balloting
Coffee and Doughnuts

9:00-9:45 a.m.
Concurrent Sessions
Various Rooms

*Biological Humor*
Russell Wagner

A bit of humor can always enliven your biology course, especially when this humor is appropriate to the topic under discussion. Humor may also be used to show the lack of biological knowledge among poets, cartoonists and humorists. Example: "A bee is such a busy soul, it has not time for birth control. That is why in times like these there are so many sons of bees."

With little imagination a pun will elicit a response to indicate whether or not your students are paying attention. Some may even enjoy them and perhaps you will be more vividly remembered. Students have helped to make my test grading bearable (not bareable) by coming up with such gems as "the castrate gland" and the "respectable of a flower."

*E. coli Repair of Cis-Platinum-Damaged Plasmids*
Robert Muckel
Doane College

Certain types of cancer are successfully treated with cis-platinum, which destroys their DNA. Those cancers that are resistant to cis-platinum treatment are able to repair the damage to their DNA. This paper details a preliminary study of the repair of cis-platinum damaged plasmids in *E. coli.*

Acceptable Practices Part I: Vertebrate Usage in Teaching and Research
James Rooney; Dave Erkenbrack
Lincoln University; Central College

Review of the basic regulations and guidelines acceptable in the housing and care of vertebrate animals for either teaching or research purposes. A bibliography of relevant literature will also be made available to participants.

10:00-10:45 a.m.
Concurrent Sessions
Various Rooms

Acceptable Practices Part II: The Animal Rights Issue
James Rooney; Dave Erkenbrack
Lincoln University; Central College

The ethical, moral and legal dilemmas of vertebrate usage in teaching and research will be discussed. Such issues as alternatives to live-animal research, regulation differences in livestock-industry research, and strategies of dealing with the animal rights movement will be included. Participant interaction is strongly encouraged.
Exercise Physiology is a study of the responses and adaptations that occur in the body during exercise. This science is based on theoretical foundations and also has practical applications. In exercise physiology, the functions of various physiological systems are studied from the perspective of their role in physical performance. An overview of the basic concepts and current information will be presented.

11:00 a.m.-12:30 p.m.
Brunch (Price included in registration fee)

ACTION GROUPS:
Midwest Bioscene Editorial Board
Resolution Committee
Membership Chairs with President Elect New Members and Interested Members

Closing Business Meeting

12:30-2:00 p.m.
Executive Board