

## Annual Progress Report 2009-2010

### New Paradigm Project

University of California-Riverside

Faculty Mentor: Professor Nancy Beckage  
Departments of Entomology &  
Cell Biology and Neuroscience

Six activities were undertaken in the New Paradigm Project in the year 2009-2010:

- 1) Malian Ph.D. student Sidy Ba entered UC-Riverside's graduate program in Chemical and Environmental Engineering. Sidy Ba is a member of the Malian-based student training program and received his M.S. degree at Montana State University prior to arriving at UC-Riverside. He is a member of the Mali Agri-Business Incubator Network based in Bamako, Mali.
- 2) Sidy Ba and Professor Beckage made a joint presentation at the Entomological Society of America meeting symposium organized by Professors Florence Dunkel and were participants at the meeting and poster session in Indianapolis, IN in December 2009. The title of their presentation was "Holistic Participatory Process and Civic Engagement: From the Classroom to the Field."
- 3) Professor Beckage designed and taught the undergraduate Honors 012 class "Global Health, Agriculture and Economic Development" to twelve students in Spring Quarter 2010. The theme of the course was "Global Awareness and Engagement" with a focus on the United Nations' Millenium Development Goals and how to achieve them. Visitors hosted by the class included Professor Florence Dunkel and Professor Emeritus Dean Drenk founding director of the NGO Nine Villages. For Dr. Drenk's visit a Malian lunch was hosted by Drs. Beckage and Drenk, with a cowpea main course prepared by Dr. Drenk. Students who met with the class included engineering Ph.D. student Sidy Ba and Ky-Phuong Luong, a newly graduated neuroscience UCR student who went to Sanambebe Village in Mali with Professor Dunkel and others from Montana State University in Spring 2010.
- 4) The pre-departure training of Mr. Ky-Phuong Luong included readings and viewing of DVDs provided by Drs. Dunkel and Beckage, and CDs to learn French conversation. Post-visit activities included a visit to UC-Riverside by Dr. Dunkel who worked with Ky-Phuong on the use of a neem leaf slurry preparation to kill mosquito larvae (larvae of *Anopheles gambiae*, the malaria vector). Field experiments undertaken in Sanambebe by Ky-Phuong were replicated in the laboratory at UC-Riverside with Dr. Dunkel under controlled laboratory conditions. Ky-Phuong presented his point of view and

experiences in Sanambele as a UC Riverside student undertaking his first trip to Africa to Dr. Beckage's Honors class. Literally, the class activities can be described as "From the Classroom to the Field" as in the title of the ESA presentation made by Dr. Beckage and Mr. Ba.

- 5) Feedback from the Honors 012 class received by Dr. Beckage included statements like "not only did I learn the class material, I learned about myself." Students were required to write three essays, a two-page Gates Foundation grant proposal, and present two Powerpoint presentations in addition to the completing midterm and final exams, which is a hefty class load of work for undergraduates. They ranged from freshmen to graduating seniors and came from a variety of majors including botany and plant science, environmental science, history, political science, and pre-law and pre-medical majors. One student commented "....the presentations were nerve-wracking but I finally got over my fear of public speaking" which mirrors several other student comments that they found the course a valuable experience. The median score on Dr. Beckage's teaching evaluations was 5 in most areas (with 5 being the best score possible).
- 6) Two of the students who in 2008-2009 were associated with the Mali-student training program were nominated by Dr. Beckage for campus Civic Engagement Awards for the "Day in Celebration and Recognition of Women Students." These two students, Ph.D. student Jennifer Wright and undergraduate Danielle Wickman, were honored with the graduate and undergraduate Civic Engagement Awards. Ms. Wickman became Student Commencement Speaker for the 2010 graduation ceremony for students in the College of Natural and Agricultural Sciences in June 2010.