

YALE NSF GK-12 GRADUATE TEACHING FELLOWS IN BIODIVERSITY



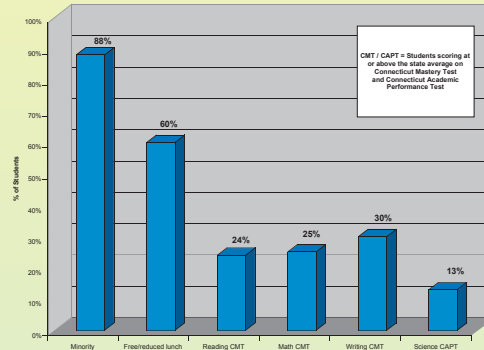
Peabody Museum of Natural History · Yale University
New Haven, Connecticut
www.peabody.yale.edu/education/fellows



MUSEUM/SCHOOL PARTNERSHIP



Yale Peabody Museum of Natural History



New Haven Public Schools

Target group: Urban middle schools
Location: New Haven, CT
Participants: 8 schools; 35 teachers

DIVERSITY OF DISCIPLINES

Yale GK-12 Fellows

- Ecology and Evolutionary Biology
- Forestry and Environmental Studies
- Epidemiology and Public Health
- Anthropology
- Neuroscience
- Biomedical Engineering



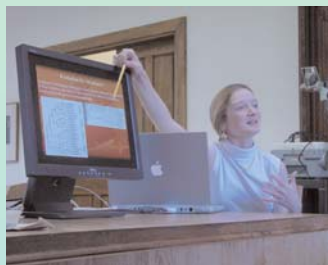
Dr. Michel Slotman examines a monarch butterfly with a Peabody Teacher and GK-12 Fellows

ORIENTATION & TRAINING

- Biodiversity- Museum curators & researchers
- Pedagogy- Curriculum specialist & Yale Teacher Preparation Program



Dr. Ray Pupedis introduces GK-12 Fellows to museum entomology collections



Dr. Nico Cellinese, botanist, presents the history of systematics



Entomologist Dr. Leonard Munstermann (Co-PI) discusses insect diversity with GK-12 Fellow Monique Scott (Anthropology)



Peabody Teacher conducts biodiversity survey with botanist Dr. Michael Donoghue (PI) and Dr. Kristof Zyskowski, vertebrate zoologist



GK-12 Fellow Leigh Baker (Forestry & Environmental Studies)



GK-12 Fellow Monique Scott (Anthropology)



Peabody Teachers confer with GK-12 Fellow Scott Teper (Epidemiology & Public Health)

PARTICIPANT ROLES [Flow Of Information & Support]

| GK-12 TEACHERS | GK-12 FELLOWS | PEABODY TEACHERS |
|--|--|---|
| Offer guidance on appropriate science content | Provide content expertise for teacher-designed curricula | Translate content-rich science into engaging, age-appropriate lessons |
| Provide feedback on GK-12 Fellows' teaching and communication skills | Teach science process skills lessons in classroom | Build on basic skills using inquiry-based, events-based methodology |
| Model pedagogical and classroom management techniques | Serve as science mentors for teachers and provide technical assistance with BioAction Labs | Guide students in independent research, using the BioAction Labs |
| Serve as role models for GK-12 Fellows | Serve as "Near Peer" mentors for students | Serve as role models for students |



GK-12 Teacher Niki Reid, GK-12 Fellow Monique Scott and Peabody Teacher perform DNA extraction



Peabody Teacher consults with GK-12 Fellow Kellie Heckman (Ecology & Evolutionary Biology)



GK-12 Fellow Leigh Baker (Forestry & Environmental Studies) assists Peabody Teacher with BAK-pak kit

SAMPLE TEACHER-DESIGNED CURRICULA

- "Happy as a Clam? Mollusks in Long Island Sound"
- "Plants in the Hood: Botanical Biodiversity in the Inner City"
- "Biodiversity on Your Body: Organisms Living On Us"
- "Watershed Worries: Pollution in the Quinnipiac Watershed"

