

Encouraging Young Scientists at the American Museum of Natural History

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By JUDITH AQUINO

Recently the Urban Advantage Middle School Exit Project Initiative marked the end of another successful year with its 2nd Annual City-Wide Science Expo. Seven institutions (the American

Museum of Natural History (AMNH), the Brooklyn Botanical Garden, the New York Botanical Garden, the New York Hall of Science, the Queens Botanical Garden, the Staten Island Zoo and the Wildlife Conservation Society) and the New York City Department of Education teamed up to form Urban Advantage, an educational program

offering professional development in research skills, resources and equipment for students and schools, visits to the participating institutions, and events for participants throughout New York City. With over 20,000 students, 195 teachers, and over 60 schools involved in 2006, the num-

ber of participants had increased by more than two-thirds since last year and Urban Advantage continues to reach out to

"Today's fair is a celebration of the efforts to take on the challenges we face in promoting science education in New York City schools," exclaimed Myles Gordon, Vice President of Education at the AMNH. Dr. Julia Rankin, Director of Science Education for the Department of Education

also praised the program's success and emphasized the urgency in helping students develop their scientific skills. Dr. Rankin urged listeners, "do not let a child's interest in science fade. Lobby your city council for more programs. Council members are finally listening to science, but this is only a start."

Following the opening remarks, attention shifted to the stars of the show, the students and their science projects. Over 30 projects were displayed

The projects included the effect of ultra-violet light on bacteria growth, a study of fish behavior and interactions, the effect of a fast-food diet, the factors and principles affecting engine efficiency, and more. When asked what they liked about science, many students said they enjoyed making discoveries. As Sigrid S. Buchbinder of the New York City

lenging, which makes it fun and I want to help people, maybe by finding a cure for AIDS or other diseases."

gram. According to Laura Klancer of District 75,

"were it not for the Urban Advantage program, my Advantage is mainly offered to 8th graders.

in the Milstein Hall of Science of the American Museum of Natural History. Underneath the giant blue whale suspended from the hall's ceiling, students proudly presented their experiments and explained how they arrived at their conclusions.

Museum School commented, "science is chal-

Teachers were also enthusiastic about the pro-

students would have just done book reports. However, the resources that Urban Advantage provided gave me ideas for science projects that excited my students." Dr. Delores Beckham, Principal of Intermediate School 145 also advocated the program and would like to see it include other grades. Currently, Urban

In discussing the plans for next year's agenda, Hudson Roditi, Director of Urban Advantage, stated that they would like to eventually include other grades in the program and are hoping for continued support from sponsors and the Department of Education. According to Roditi, the program's organizers were surprised by the magnitude of responses they received from teachers and students, which indicates "a great need for science education programs like Urban Advantage."#

Scientists Debate Teaching Evolution or Intelligent Design

By SYBIL MAIMIN

Concerned by the increasingly strident national debate about the teaching of evolution in the public schools and the campaign by some to teach intelligent design, the New York Academy of Science held a two-day conference for scientists, secondary school and college teachers of science, and public officials responsible for education policy to explore the controversy and to offer skills and background needed to deal with the issue. The conference focused on the nature of scientific inquiry and the importance of evidence and testable hypotheses. The difficulties of teaching evolution in a climate of controversy included a sobering presentation by Jennifer Miller, teacher at Dover High School in Pennsylvania, where instruction in intelligent design and questioning of evolution resulted in a federal court case in 2005.

John F. Haught, professor of theology at Georgetown University, explored the perceived clash between evolution and religion. He explained the difficulty for religious people to accept the implications of evolution at the expense of traditional hierarchical ways of thinking. Deep time seems illogical because, "Why would God fool around so many years before establishing intelligent life?" Where are values and ethics in a system that centers on matter? With evolution, the universe is purposeless and Providence is irrelevant. "Why wouldn't the religious community react against this view," Haught asked. Yet, he sees the possibility of reconciliation and an understanding of God that

can include evolution. Called "theistic evolution," this approach includes "tepid tolerance," or tolerating evolution without celebrating it. This view assumes limited human intelligence and the inability to understand the "mystery" of evolution or the wisdom of God. Another theistic approach is the "soul school" that posits the materialism of Darwin may be harsh but is not evil. It is a "tough love" view and maintains God chastises those he loves and imposes suffering to create challenges. An ambiguous, unfinished universe is consistent with openness to the future.

Gerald F. Wheeler, executive director of the National Science Teachers Association, reported the debate over evolution "is taking a toll on teachers." He explained, "Most of us got into this job because we like science and we like kids...the public debate puts science teachers in an awkward position." He lamented that teacher preparation in science is often "atrocious" and leaves teachers unprepared to teach this "touchy" subject. Kenneth R. Miller, professor of biology at Brown University advised taking anti-evolutionists seriously. "They are intelligent and this is an important issue to them." "Stop trying to sound too scientific and do not use the word 'theory'." Haught remarked that clergy have to be better educated in science; few are equipped to adequately deal with the question. He suggested science educators and clergy use "explanatory pluralism," or offering many answers to a question, each of which complements rather than contradicts.#





