RANDOM SAMPLES

edited by CONSTANCE HOLDEN

"No Go" for *Jurassic Park*–Style Dinos

Scientists hoping to salvage a snip of millions-of-years-old DNA to help unravel evolutionary relationships have long believed that their best chance lay in creatures preserved in amber, which is fossilized tree resin. In the past few years, some U.S. scientists have claimed such findings. But none has been independently replicated, and critics have suspected that the "ancient" DNA was actually the result of modern contamination.

Now, researchers at the Natural History Museum in London have come up with what many regard as a definitively negative result. Team members led by evolutionary biologist Jeremy Austin bent over backward to avoid contamination by getting a brand-new £150,000 lab. They used amber-encased species from the same collections used in earlier efforts, in hopes of replicating the findings. But after 2 years, they report in the 22 April *Proceedings of the Royal Society, Biological Sciences*, they have found not a trace of DNA.

J. AUSTIN

No DNA here. Stingless bee (*Proplebeia dominicana*) in Dominican amber.

That casts serious doubts on two 1992 reports, in which scientists claimed to have isolated short pieces of DNA from a termite and a bee—both about 30 million years old—as well as a report that DNA had been obtained from a *Jurassic Park*–age (125 million years) weevil. Many scientists already doubted these claims because cells and their DNA generally start degrading within hours of death. Only in dry and frozen places such as the Tyrolean Alps, where the 5000-year-old "Ice Man" was found, have body tissues and DNA been successfully preserved.

Molecular biologist Svante Pääbo of the University of Munich, one of the scientists who isolated the Ice Man's DNA, says that he is "not surprised at these negative results from amber." But, Austin says, "We had high hopes at the beginning—so these results are disappointing."

Space Station Bargain

Canada will build a robotic hand for the space station in exchange for access to its labs, under an agreement with NASA announced last week in Washington, D.C.

According to the arrangement, Canada will spend $152 million over 3 years to build a "Special Purpose Dexterous Manipulator." It will serve as the "fingers" at the end of a robotic arm, also of Canadian manufacture, that astronauts will use for in-space assembly of the multistage station, scheduled for launch early next year. In return, Canada will gain a 2.3% stake in the station's research capacity—equaling 132 hours a year of crew time in its pressurized labs—freeing Canada from about $22 million in annual fees. (The station is supposed to last some 30 years.)

Canadian Industry Minister John Manley says the agreement helps keep Canadian industry involved in space. "Our priority is to sustain the three established niches: Earth observation, satellite communications, and space robotics," he says. It's also "positioning [Canadian science] very well in space and in robotic technology," says Science Minister Jon Gerrard. The deal will help NASA hold down construction costs on the $30-plus-billion station—its budget from NASA is now capped at $2.1 billion a year.

Cancer Research Big in Vancouver

The British Columbia Cancer Agency—a nonprofit treatment and research consortium based in Vancouver—last week unveiled its 1000-day "Millennium" plan to raise $100 million ($72 million U.S.) by January 2000. Most of the money is for construction of a cancer research center that will double the agency's current research capacity. Construction is to begin within the next few years on a facility for up to 500 researchers. "It will be one of the largest, if not the largest, free-standing cancer research centers," in Canada, says the agency's vice president for research, Victor Ling. The focus will be on identifying and seeking new ways to counteract the gene mutations that cause cancer. Ling says the time is ripe for this endeavor: Scientists will be able to combine information from the human genome project with the large epidemiological database maintained by British Columbia's well-organized health-care system. To attract rising young research stars, the center will set aside funds to keep them afloat between grants.

Geneticist Mary Claire King of the University of Washington, Seattle, a consultant to the cancer agency, says that British Columbia has universal access to health care, a diverse population, good epidemiology, and strong basic science—all of which make for a "unique combination" for furthering cancer research.

Overhauling Environmental Education

Environmental education in U.S. public schools has been criticized as superficial, sometimes erroneous, and often politicized (*Science*, 13 December 1996, p. 1828). An Independent Commission on Environmental Education has now completed a textbook review that affirms many criticisms and suggests measures to infuse environmental education with more scientific rigor.

The 12-member commission, set up by the conservative George C. Marshall Institute in Washington, D.C., is headed by physicist Robert Sproull of the University of Rochester in New York, and includes scientists such as Florida State University ecologist Daniel Simberloff.

Some of their conclusions:

- The economics of "green" policies, such as recycling, are widely ignored. One textbook even dismisses cost-benefit analysis as a "sophisticated method of protecting economic self-interests at the expense of environmental quality."
- "Scientific theorizing" on such issues as climate change and rates of species extinction often is presented as "settled fact."
- Some texts promote major factual errors—one, for example, says: "Experts believe that by the year 2000, most of the world's oil may be depleted."
- Some texts seem more interested in advocacy than science—emphasizing, for instance, the need to reduce fossil-fuel use without providing basic facts about the greenhouse effect.

The commission says that early on, young people should focus on learning about the natural world: "Students should begin with a study of the environment before they are asked to take actions to save it." At upper levels, environmental education should develop into a multidisciplinary endeavor.

Some groups aren't crazy about the report. John Seager of Zero Population Growth, whose book, *Earth Matters*, was called "one of the most flawed" the commission reviewed, calls it "disinformation" by a group with no expertise in education. More on the report can be found at www.marshall.org/icee.html.