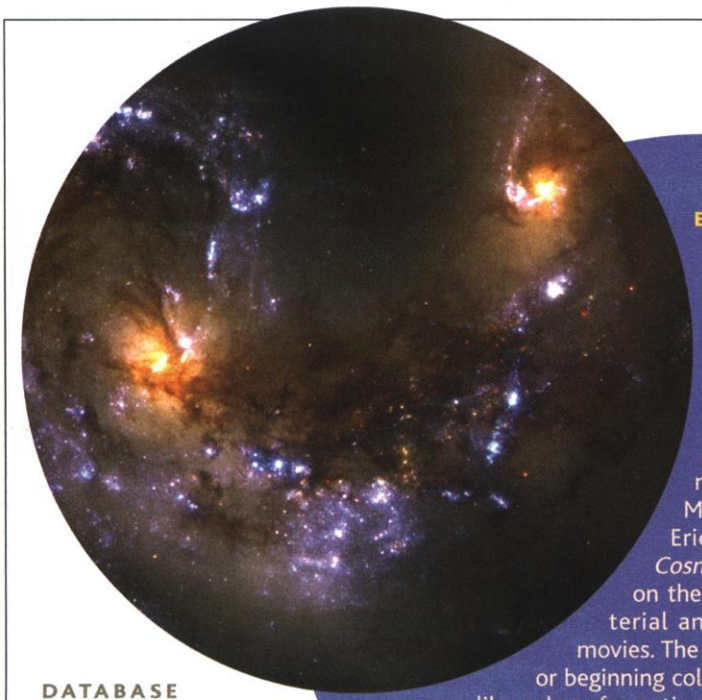
NETWATCH

edited by MITCH LESLIE



EDUCATION

Life, the Universe, and Everything

Follow the evolution of the universe, from the big bang to the appearance of our species, with this new site hosted by Tufts University in Medford, Massachusetts. Astrophysicist Eric Chaisson and colleagues excerpted *Cosmic Evolution* from Chaisson's textbook on the history of the universe, updating material and adding photos, illustrations, and movies. The seven sections, aimed at high school or beginning college students, immerse you in topics like galaxy formation, the birth and death of stars, the origins of life, and the evolution of intelligence. Each section also features jazzy animations that show events like the detonation of a bloated elderly star and the condensation of the solar system from interstellar jetsam. Teachers will find plenty of follow-up activities for the classroom.

www.tufts.edu/as/wright_center/cosmic_evolution

LINKS

Science Directory

Looking for a U.S. government lab that studies mad cow disease, projections of how global warming might affect the ranges of forest trees, or information on alternative fuel vehicles? Drop by SciTechResources.gov, a select list of federal government Web sites offering all kinds of scientific and technical information. This still-growing guide, compiled by the National Technical Information Service, spans subjects from aeronautics to transportation and allows you to search by agency, topic, type of resource, and key word. You can also browse a roster of more than 30 Web portals that have gathered information on subjects such as invasive species, biotechnology, food safety, and neutron scattering. The site also offers access to millions of government reports and studies.

www.scitechresources.gov

DATABASE

Going, Going, Gone

The dodo, the passenger pigeon, Steller's sea cow, the great auk—these are just a few of the species we humans have exterminated in recent centuries, and hundreds or thousands more may be disappearing every year. For a grim tally of animals that have vanished since the year 1500, check out this database compiled by curators at the American Museum of Natural History in New York City.

So far, the data only encompass mammals and fishes, but the curators plan to add information for birds and possibly reptiles and other groups, according to ichthyologist Ian Harrison. The database provides 31 variables for each species, such as common name, evidence for extinction, former habitat and distribution, and locations of specimens. You can download the raw data and use any standard database program to view and sort them, and you can also retrieve bibliographies on fish and mammal extinctions. The database is part of a project to better document extinctions and help scientists accurately determine extinction rates.

creo.amnh.org/pdi.html#access

TOOLS

Bioinformatics Workshop

Inspired by the Open Source software movement, bioinformatics.org provides information on a wealth of free tools being developed for bioinformatics research. The community site, founded by scientists at the University of Massachusetts, Lowell, has gathered 39 projects so far that range from software for analyzing nucleotide sequences to a program that measures DNA band sizes from gel images. Although some are ready to use, other projects are still at early stages of development and don't yet work. Visitors can download the underlying code for some software, and they're invited to submit feedback to developers.

bioinformatics.org

RESOURCES

Stressed-Out Plants

Hot summer days may be ideal for a trip to the beach, but the heat can traumatize plants like lettuce, peas, and wheat that prefer cooler temperatures. Drought, heat, cold, high salinity, mineral deficiency, and toxic minerals can all cause stress for plants. Because plants grow slowly under these conditions, plant stress hampers world crop production. This site, launched last year by an Israeli scientist, offers original review articles on the six major causes of plant stress, as well as copies of recent abstracts, news clips on global vegetation stress, and a discussion board. One way scientists are tackling plant stress is through transgenic plants with genes that heighten resilience, and the site offers an update on current projects. There is also a database with references for more than 5000 research articles stretching back to 1930.

www.plantstress.com

Send great Web site suggestions to netwatch@aaas.org

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