

What's New at the World Data Center for Paleoclimatology

Internet Use Sets Record

More and more people are checking out the paleo information available from the WDC. While the amount of data retrieved leveled off in the summer of 1998 at around 2000 MB/month, the total number of users per month continues to climb, and surpassed 15,000 users/month in August 1998.

Milestones in Temporal Resolution

The vision of a global set of proxy measurements with high, in some cases annual resolution is getting closer, and the increasing emphasis on annually resolved records is evident in several data sets received in the past year. The Mann *et al.* (1998) reconstructions of average Northern Hemisphere temperatures for every year since 1400 provides a synthesis data set that include year by year global maps of temperature over the last 250 years generated using modern spatially-correlated patterns to reconstruct the globe using the sparse paleo grid. Briffa *et al.* (1998) reconstructions of Northern Hemisphere growing season temperatures for the period A.D. 1400-1994 document recent increased summer warmth and examine the link between temperature and volcanic forcing. The wonderful GRIP and GISP ice core data are now available via the Internet and as a CD. The compilation of these data represents an enormous effort on the part of individual scientists and groups of scientists, and makes possible other exciting studies, such as that by Blunier, *et al.* (1998). Blunier *et al.* provide an improved correlation between Greenland and Antarctic ice cores that now makes it possible to evaluate the timing of millennial scale events and other abrupt changes between the Northern and Southern Hemispheres. Each of these data sets are highlighted under the "What's New" section of the WDC web site, and the data are available over the Internet. Of course, these data are only a small fraction of the data

The map on the cover of this newsletter was produced using the software *PaleoVu*, which is available together with the data from the WDC-A Website at <http://www.ngdc.noaa.gov/paleo/softlib.html>

received in 1998, and many more important and exciting new data sets covering different time scales, and different climate and environmental processes can be found at the WDC (www.ngdc.noaa.gov/paleo/paleo.html).

Spotlight on Data Useful to a Broad Audience

Data produced by PAGES scientists are often needed by the larger, interdisciplinary audience outside of the paleo community, and the WDC attempts to make highly specialized published paleo data accessible to this audience as well. Examples of the broad audience include scientists from other IGBP core projects, climatologists, oceanographers, environmentalists and earth scientists. To make paleo data accessible to this broader audience, we have begun to spotlight certain data sets on our web site with a "What's New" section. Each spotlight contains, in addition to the data sets, an abstract, some explanatory material, figures, sometimes a few photographs, plus links to the other web-based information about the data. Using "What's New" makes it easier for our interdisciplinary colleagues to keep up with the fast pace of research in paleoclimatology today (www.ngdc.noaa.gov/paleo/whatsnew.html).

Data Organized by Scientific Discipline

In its role as the long-term archive and data coordination point for PAGES tasks and activities, the WDC handles an incredibly diverse array of paleo-environmental data. To make these data easier to find, the WDC has re-organized its web site access by discipline. Data access via FTP has always been organized by discipline, and of course, scientific journals are mostly discipline-oriented, so the web site organization is a logical one for scientists. New discipline categories include climate forcing and ice cores (containing the rapidly expanding ice core data inventory). In addition to discipline-specific data access, the discipline web pages also feature other information about projects and scientific initiatives, and links to related sites. One of the advantages of the web is that one can present multiple pathways for a user, and one can also choose a multidisciplinary pathway to

find a data set. Next time you browse the WDC site, you might try using the general search page (www.ngdc.noaa.gov/paleo/ftp-search.html) or the discipline searches for paleocean, pollen and tree-ring data, and climate model output. Alternatively, one can search by contributor name.

Some Things Never Change

Some things at a World Data Center never change, like the ongoing commitment to the safe and effective data archive, and successful data distribution to scientists around the world. The WDC's in Boulder (Paleoclimatology, Marine Geology and Geophysics, Solar and Terrestrial Physics, Solid Earth Geophysics) have upgraded their computer system to a speedier, more fault tolerant co-server configuration (two SUN Ultra Enterprise 2 workstations, each with 108 GB disk storage, and a 6 MB/sec fractional T3 Internet connection). We still have the painfully restricted bandwidth crossing the Atlantic, and continue to cope by making web pages and data file sizes small, and by using a mirror site (medias.meteo.fr/www/anglais/activites/donnees/). Taped backups, migration to new media, and offsite storage all remain a cornerstone of the WDC commitment to the long-term archiving of data. Hard disk and magnetic tapes do not last forever, and data are continuously migrated to new media both for protection against degradation, and also to take advantage of technological advances.

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