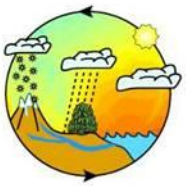
IsoMAP isoscapes modeling, analysis and prediction

IsoMAP Launched!

We are excited to announce the initial launch of IsoMAP, which can now be accessed at http://isomap.org! The current beta version includes a full suite of functionality for developing, visualizing, and sharing precipitation isotope ratio models and maps. Additional functionality, including plant water isotope modeling and geographic assignment algorithms are in the works. We are also working on developing comprehensive documentation and video tutorials that will guide you through the site, but in the mean time we invite you to use the "Quick Guide" that accompanies this newsletter to see how to sign up for an account and begin exploring and creating isoscapes! Once you've had a chance to explore, please take two minutes to provide feedback on your experience here.

Meeting Announcement: Isoscapes 2011



The IsoMAP group will be hosting Isoscapes 2011 at Purdue University's Discovery Park on Sept. 26-27, 2011. Isoscapes 2011 is intended as a follow-up and extension of the very successful 2008 Isoscapes meeting. The focal theme for this year's interdisciplinary meeting will be new methods and technology for spatial analysis of isotopic data and the science that it supports. In addition to an excellent slate of invited and contributed talks and poster presentations, the meeting will feature training and working sessions focused on the IsoMAP webGIS tools and other cyberinfrastructure of relevance to the community. The IsoMAP project will provide approximately 15 junior scientist awards providing registration and travel support (applications will be solicited in the early summer). Due to space and program limitations attendance will be capped at 80 participants.

Please mark your calendars now! More details will be added to the meeting website, http://isoscapes2011.org, in coming months, and we expect to open registration in late May/early July.

The current list of confirmed speakers includes:

Chris Still (UCSB, coupled carbon and water cycles), ***Graham Farquhar*** (ANU, plant physiology and biosphere-atmosphere fluxes), ***Greg Michalski*** (Purdue U., isotopes in atmospheric trace gases), ***Jim Ehleringer*** (U. Utah, spatial ecology and forensics), ***Keith Hobson*** (Saskatoon, migration ecology), ***Michele Buzon*** (Purdue U., human mobility and migration), ***Pratigya Polissar*** (Columbia U., paleoclimate and paleoelevation), ***Renee Brooks*** (EPA, national aquatic ecosystems surveys), and ***Shaowen Wang*** (U. Illinois, web-GIS technology and cyberinfrastructure).

IsoMAP is made possible by support from the U.S. National Science Foundation

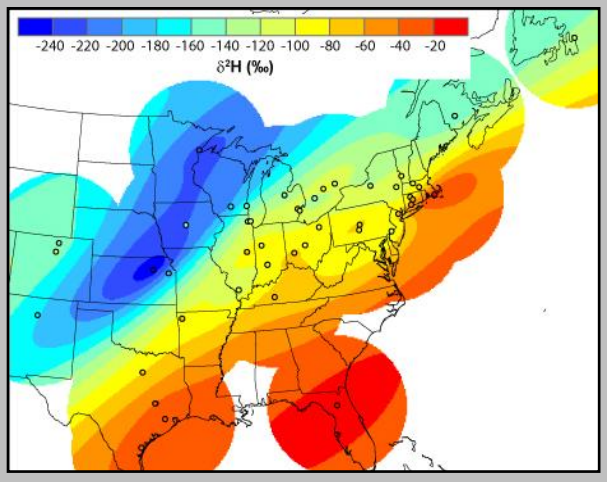
IsoMAP Tutorials at BASIN Water Cycle Meeting

The release of the initial version of IsoMAP coincided with the BASIN RCN-sponsored meeting "Roles of Stable Isotopes in Water Cycle Research". As a component of the meeting agenda IsoMAP team members presented several posters documenting the project and conducted two tutorial sessions that offered an introduction to IsoMAP technology and functionality. In total 46 people participated in the tutorial sessions. These participants were guided through the process of account creation, the precipitation isotope workflow, and job management in IsoMAP. The sessions also represented the first test of the IsoMAP system under moderate simultaneous load conditions (20 – 25 users) and uncovered some glitches that have since been addressed by the project team.

Formal feedback was gathered from tutorial participants through a short questionnaire. The most important component of this feedback was a request for suggested changes or additions that would improve IsoMAP's utility in research, teaching, and outreach. You might also be interested to know that fifteen of fifteen survey participants said they would recommend that their colleagues and students check out IsoMAP! Once you've had a chance to use the system, we strongly encourage you to provide feedback yourself by accessing the survey here.

Groundhog Day Storm, 2011

From January 31 – February 4, 2011, an intense cold front and low pressure system moved across the central and eastern USA and Canada, bringing large accumulations of snow to many states. As the storm transited the region, approximately 50 scientist and citizen volunteers came together to collect more than 100 samples of precipitation. The samples were sent to the Purdue University Stable Isotope laboratory where they were analyzed for their stable H and O isotope ratios. The resulting data provide a tantalizing glimpse of "isotopic weather": space and time-varying isoscapes that reflect patterns of water sources that fed the system and the precipitation processes that lead to the intense accumulations of the Groundhog Day Storm. You can get a sneak peak at the results at Waterisotopes.org.



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