

## POSTER PRESENTATION

### DIATOM DATA IN THE NEOTOMA PALEOECOLOGY DATABASE

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The Neotoma Paleoecology Database ([www.neotomadb.org](http://www.neotomadb.org)) is a community-curated data resource that supports global change research by enabling broad-scale studies of taxon and community diversity, distributions, and dynamics during large environmental changes of the past. In addition to diatoms, it includes data on pollen, ostracods, insects, plant macrofossils, vertebrates, geochronology and other sediment characteristics. By consolidating many kinds of paleoecological data into a common repository, Neotoma lowers costs of paleodata management, makes paleoecological data openly available, and offers paleoecologists a high-quality, curated data resource. Currently, over 1,000 of the 16,000+ datasets in Neotoma are diatom related; they include > 330 diatom stratigraphies and 600 surface samples. These data are in addition to those in the Diatom Paleolimnology Data Cooperative ([diatom.ansp.org/dpdc/](http://diatom.ansp.org/dpdc/))(about 5,000 diatom counts), which are being transferred to Neotoma. The Explorer application on the Neotoma website provides a way to search for data by investigator, site name, taxon name, geographic area, and other data factors. For stratigraphic diatom datasets, diagrams can be viewed showing taxon abundance vs depth or chronology (when present). Data uploads are handled via the Tilia software program; its automated systems check data conformity and completeness, and match taxon names with those in the master list. Downloading datasets into Tilia from Neotoma allows users to work with the data using the many tools offered by the Tilia software. Most diatom datasets are currently entered by stewards at the Academy of Natural Sciences of Drexel University (ANS), but others can upload as well. Data include diatom counts from core stratigraphies and calibration datasets, chronologies, inferred environmental values, and related metadata. We anticipate that diatom community investigators will continue to have their datasets uploaded and that data will be used for large-scale synthesis studies. For data contributors, Neotoma offers a public data archive with high visibility and quality standards. For data users, Neotoma provides a well-structured, open-access, and easy-to-use resource with multiple avenues for accessing, analyzing, and refining paleoecological data. Neotoma is used as an educational resource as well; a lesson plan using diatom data is being produced at ANSto allow students to investigate earth systems changes, develop an understanding of past biotic responses to climate change, and apply knowledge gained to current rates of environmental change.