The primary goal of this project is to develop a global digital database of Quaternary dune fields and sand seas. The widespread application of luminescence dating to the study of dune fields and sand seas has enabled direct dating of periods of sand accumulation and stability. The accumulation and present configuration of sand seas and dune fields therefore provide a valuable source of information on past climate conditions, including changes in temperature, wind, and precipitation. The spatial patterns of dune activity after the MCA have helped delineate regional drought boundaries, particularly in the eastern Great Plains.

Great Plains dune activity from 1200–600 years ago is in 100-year time slices. Squares indicate sites expected by luminescence ages and circles by radiocarbon ages. (Halfen and Johnson, 2013)

**FUTURE PLANS**

*Short term (2013)*

A special issue of Quaternary International is being edited by Lancaster and Thomas. This will incorporate a series of reviews of data and interpretations for each major region incorporated in the database.

*Medium term (2014)*

A fully functional version of the database in Microsoft Access format will be finalized and made available via the web.

*Long term (2014–)*

The chronostratigraphic database will be expanded to include pertinent geologic, climatic and biogeographic data to provide a current framework for understanding how dune systems develop and interact with other physical and biological earth systems.

**REFERENCES**

