

Robert Kawika Sheer

Ancient bristlecone pine tree in the White Mountains of California, with "star tracks" circling the North Star. Time-lapse photo by Robert Kawika Sheer, www.SheerEntertainment.com.

ABOUT LTRR

- Established in 1937, the University of Arizona Laboratory of Tree-Ring Research is the world's premier and largest center devoted to dendrochronology – the study of environments and cultures using tree rings.
- The field of dendrochronology was created by UA Professor Andrew E. Douglass, who used tree rings to discover exactly when the ancient Southwestern peoples built their cliff dwellings.
- We contribute many powerful insights into the long-term dynamics and history of temperature in the Northern Hemisphere, and drought and river flows in North America, the Mediterranean region and the Middle East.
- Our research findings are frequently in the news, including recent coverage in *The New York Times*, *National Geographic Magazine*, and CBS "60 Minutes."



Old-growth mixed conifer forest in the Guadalupe Mountains National Park, Texas. Dan Griffin photo.

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If you'd like to support our work, please contact:

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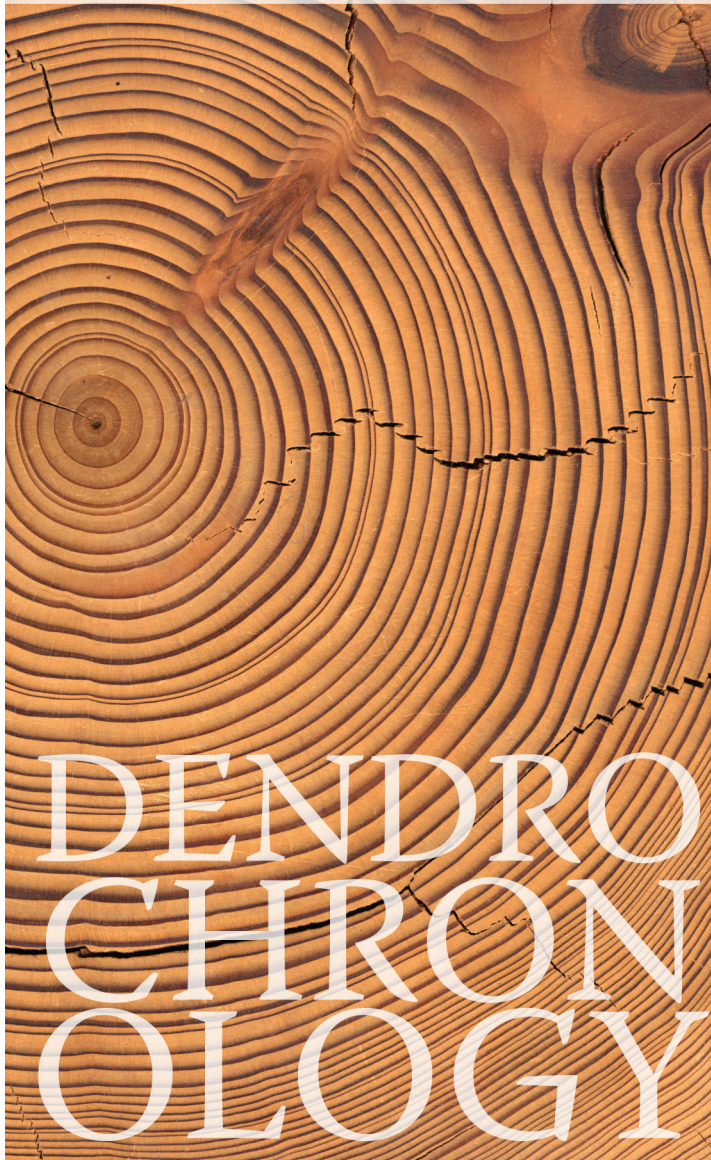


Beam from Broken Flute Cave, AZ,
with pith date of 521 CE (common
era) and cutting date at 623 CE.



University of Arizona LABORATORY of Tree-Ring Research

advancing the science of dendrochronology



the dating and study of growth rings in trees

STUDENTS



Graduate student Erica Bigio studies tree ring samples.
Martha Retallick photo

Our undergraduate and graduate students experience a multidisciplinary education at the Tree Ring Lab! Students obtain their degrees in different departments, and faculty hold joint appointments in these departments and schools:

Anthropology

Atmospheric Sciences

**Ecology and
Evolutionary Biology**

**School of Geography
and Development**

Geosciences

**School of Natural Resources
and the Environment**

To learn more about studying with us, visit our web pages or use the e-mail address on the back panel.

RESEARCH

Our research provides fundamental knowledge and timely applications that are important to Arizona and the world, such as:

- Climate history from tree rings provides important perspectives about recent and future hydro-climate variability and change.
- Forest fire history from tree rings is useful today for park and wilderness managers who are managing and restoring natural ecosystems.
- Chronologies of ancient volcanic eruptions and earthquakes from tree rings provide information about geological change.
- The timing and magnitude of environmental pollution recorded within tree rings aids in discovery of possible causes of human illness.
- Cultural history from tree rings helps us understand how ancient people and societies interacted with their environment.



A high school intern with the LTRR in 2009 looks out over old-growth trees and Douglas-fir logs in White Canyon National Monument, Utah. Dan Griffin photo.

OUTREACH



Senior Research Specialist Rex Adams demonstrates the diameter of a giant sequoia tree with Tucson elementary school children using a radial tree-ring specimen that extends from tree center to bark and has more than 2,000 rings. LTRR photo.

People of all ages love trees and the stories that their rings tell. Sharing these wonders is both educational and fun! Our outreach efforts include:

- Public demonstrations and presentations
- Tree-ring “teaching kits”
- Display specimens and traveling exhibits
- Expert information and advice to local, state, tribal, and federal agencies on cultural history, and water supply and ecosystem management
- Tours of our Laboratory and archive

In 2012, we expect completion of the new LTRR building. It will house our offices, laboratories and collections, interpretive exhibits for the public, and a 10-foot diameter giant sequoia cross section!

Want to be an outreach program volunteer? Arrange a tour, or learn about other programs? See our contact information on the back panel.