**Laboratory of Tree-Ring Research Graduate Assistantship in Outreach**

**A Proposal to the Graduate College**

**Submitted by:**

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Value to LTRR & UA:

The new Bryant Bannister Tree-Ring Building (BBTRB) offers a fabulous opportunity to engage and educate UA students and their families, visitors and the public. We expect to host more than 10,000 visitors per year in our new exhibit space and on tours in the new building. The Laboratory of Tree-Ring Research (LTRR) is an iconic center of excellence on the UA campus, exemplifying the interdisciplinary nature and history of our institution. Great discoveries in archaeology, climatology, geology and ecology have been made at LTRR. Continuing work at LTRR is on the cutting edge of research and teaching in water, earth, fire, and archaeological sciences. Many superlative specimens and the science stories behind them are on display (or will be) in the new building for all to learn about, enjoy and to be inspired by.

To capitalize on the new BBTRB opportunities and to expand the scope and portfolio of our outreach efforts at the LTRR, this request for a new **Graduate Assistantship in Outreach** (GAO) will engage the public in a way that will reach all ages, backgrounds, and learning styles. Specifically, the student selected for this position will expand our informal science education program by connecting effectively with K-12 students and the greater Tucson community by expanding our Outreach and Environmental Education programming. The College of Science actively promotes awareness and knowledge of scientific issues by making programs accessible to the public.

Specific Duties (in training and experience):

The GAO will be supervised by our Community Planner for Outreach and Environmental Education, Pamela Pelletier (she works for CoS, and splits her time between Flandrau and LTRR). The GAO will also be mentored by the Director (Tom Swetnam) and the Curator of Collections (Pearce Paul Creasman) on communicating and teaching tree-ring sciences to the public. We expect to recruit the GAO primarily from the current cadre of graduate students being mentored by LTRR faculty (which includes about 18 grad students obtaining degrees in 3 colleges and 6 departments), but we will also consider other interested and qualified graduate students.

The primary list of duties is as follows:

* Educational Outreach Activities: we offer educational classes and tours to schools. These classes allow the opportunity for us to weave in ground-breaking tree-ring research (past and present) and making science careers more real for budding scientists.
* Outreach events - public demonstrations and presentations about tree-ring science
* Managing the Tree-Ring teaching and outreach kits
* Help maintain the new LTRR Docent program & manage the LTRR docent program during the summer months
* Tours of the new Bryant Bannister Tree-Ring Building and labs
* Assist in the management of the LTRR Wood Workshop. Overseeing safety training for student and faculty use of tools such as band saw use, sanding, wood belt sander, & random orbit sander. Workshop sample preparation for faculty use, special events, presentations.
* Organizing the LTRR Graduate Student Volunteer Cadre for outreach events.

Educational/experience value and benefits to the grad student holding the assistantship:

The Graduate Assistantship in Outreach will actively promote awareness and knowledge of dendrochronology and its interdisciplinary applications. Research grants have an education and public outreach (E/PO) component that requires outreach & a dissemination of broader impacts of the research. Students can get lost in doing this on their own. With our existing LTRR Outreach and Education Program, this student will optimize their opportunities to publicize tree-ring science to the public.

The Graduate Assistantship in Outreach supports the student’s own scientific inquiry and education. By getting involved in science outreach at LTRR, we offer real opportunities to develop presentation skills that can be applied in science teaching and other career areas. Outreach allows opportunities for students to articulate their research to the general public. In order to be effective scientists, students have to learn how to explain their work a succinct manner so that anyone can understand.

In addition, science outreach provides real community service by engaging the community in science literacy. With an increasing shortage of trained science teachers at all levels, outreach offers a specialized teaching resource. The LTRR Outreach and Education Program engage the K-12 community making science more real for next-generation scientists by bringing education from the university to local schools.

Support:

2 years of support at 0.5 FTE

Academic year: .50 FTE/AY = $16,926 + 65% ERE (current ERE rate. Will change on 7/1/13) = $27,928.00

Summer salary: .50 in the summer = $5,755 + 65% ERE = $9,495