



## Division of Earth and Ecosystem Sciences

Applications are encouraged for a newly-funded graduate research assistantship to study baseline microbial ecology of Walker Lake, Nevada. Often described as a “blue jewel of the desert”, Walker is one of only six freshwater terminal lakes in the world. The lake is currently under severe desiccative stress due to the historic diversion of its major water source. Walker Lake is used by vast numbers of migratory birds and is home to several threatened endemic fish species, including Lahontan Cutthroats (*Oncorhynchus clarki henshawi*), the largest subspecies of cutthroat trout.

The assistantship will be at DRI’s Las Vegas campus beginning summer or fall of 2012. The start date is somewhat flexible, as an opportunity for employment prior to enrollment exists with half-time monthly salary support of \$1,800 during the academic year for Ph.D. candidates and full-time support during the summer (combined about \$27,000/yr). Health insurance and tuition waivers are provided. Enthusiastic candidates with a demonstrable record of productivity (research and scholarly achievement) and a strong background in microbiology, bioinformatics, environmental chemistry, limnology, or related fields are encouraged to apply.

Funding, through the US Fish and Wildlife Service, currently exists for a baseline characterization of the microbial and microalgal ecosystems of Walker Lake. Our sponsor recognizes that a narrow window in time remains to develop an understanding of the lower trophic structure of this lake before increasing salinity may ultimately drive its endemic fisheries to extinction. Preliminary data indicate that alkaliphilic microbial populations control the limiting nutrient (nitrogen) and mediate dynamic elemental cycles of arsenic, sulfur, carbon and metals.

While focusing on the lake’s exotic chemistry and unusual microbial biogeochemistry, our project will be conducted to inform fisheries and ecosystems management objectives. Thus, the successful candidate will enjoy, not only an unprecedented opportunity to explore a novel microbial ecosystem, but also a chance to influence efforts to help save an endangered national treasure. For more about DRI’s work in the Walker Basin, see: <http://walkerlake.org/index.html> and <http://www.nevada.edu/walker/index.html>.

### To Apply:

The successful candidate will join DRI’s Environmental Microbiology Laboratory at the Southern Nevada Science Center and obtain their degree from the University of Nevada Las Vegas, most likely in the School of Life Sciences (SOLS). Application packages (Feb 1<sup>st</sup> deadline for Fall) should be submitted to the UNLV School of Life Sciences Graduate Program and a copy sent electronically or hard copy to Dr. Duane Moser, Desert Research Institute, 755 E. Flamingo Rd, Las Vegas, NV 89119. For information on how to apply, please consult <http://sols.unlv.edu/prospective.html> and when completing the application, identify Duane Moser as your preferred mentor. All applicants will be expected to provide a statement of interest, undergraduate transcripts, and contact information for three academic or professional references. Information about DRI can be found at <http://www.dri.edu/>. To learn about UNLV and the School of Life Sciences go to <http://sols.unlv.edu/>. All candidates are encouraged to contact Duane Moser ([Duane.moser@dri.edu](mailto:Duane.moser@dri.edu)), 702-378-7639, prior to applying to UNLV and with any additional questions.