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April 2, 2010

Connie Woodhouse, Chair Search Committee, Forests in the Earth System School of Geography and Development The University of Arizona Tucson, AZ 85721

Dear Connie,

I strongly support the application of Andy Bunn for the LTRR faculty position in Forests in the Earth System. I recruited Andy as a PhD student when I was a faculty member at Montana State University (MSU). I should note that at the time, Andy had just finished a MS Environmental Management at Duke University and was being strongly encouraged to continue his PhD studies at Duke. I offered Andy the opportunity to work with me on a project that sought to integrate over a decade's worth of research on climate change impacts in subalpine forests of the Sierra Nevada. I was straightforward with Andy about the relative prestige of a degree from MSU vs. Duke. As an early indication of Andy's intellectual self-confidence, he chose to come to MSU because of his desire to forge links between paleoecology and landscape ecology using tools that included remote sensing and spatial analysis as well as tree-ring analysis.

When I recruited Andy, I knew I was getting a student with a high aptitude and appetite for numerical data analysis (e.g., he seemed pleasantly geeky). What I did not fully anticipate was Andy's intellectual rigor and creativity. Andy thrives in situations where he can design and implement projects that address interdisciplinary "grand challenges" using cross-scale data sets that link pattern and process. In his PhD program, this involved developing models of tree-line response to climate change that incorporated demography of individual trees to landscape-scale gradients in available energy and soil moisture. Despite the fact that Andy was fully funded as a PhD student, he was keen on honing his grant-writing skills. Towards that end, he independently obtained funding for his work from the Montana Space Grant Consortium and the prestigious Canon National Parks Science Scholarship program. He used the extra funding to incorporate undergraduates into his program. The three students he mentored (Bellante, Sharac and Waggoner) all participated fully in his research and used the experience to move forward professionally in graduate programs. In the end, Andy's time at MSU resulted in six peer-reviewed papers (four as first author) and a growing reputation in the field as a collaborative, creative young scholar.

Andy's post-doctoral work at the Woods Hole Research Center launched his research program in the Arctic. His highly cited *PNAS* paper with Goetz continues his interest in linking field data with remotely sensed data to tackle a big question—in this case, recent trends in photosynthesis at high latitudes and the implications of such trends for the global carbon cycle.



Ever the independent spirit, Andy chose to follow his passion for undergraduate education by taking a position at Western Washington University (WWU). He has been very successful, obtaining funding from NSF and NASA to continue his Arctic research and to follow-up his PhD research in the Sierra Nevada with work on a parallel system in the bristlecone pine forests of the White Mountains. While teaching <u>five</u> classes per year, Andy continues to do groundbreaking research, fueled by talented undergraduates and MS students. His NSF-funded Polaris project funds undergraduate research expeditions to Siberia. If you have any doubt that Andy is an inspired teacher, simply check out the Polaris Project web site (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>) or the NY Times coverage of Andy in the field (<a href="http://thepolarisproject.org/index.shtml">http://thepolarisproject.org/index.shtml</a>)

I have remained in close touch with Andy and know that, while he is highly successful in the WWU environment (e.g., received early tenure this year), he would like a transition to a more research-intensive environment where he could mentor PhD students and post-docs. He would fit in well at the University of Arizona. He is engaging, loves intellectual discourse that crosses disciplinary boundaries, and is a seasoned team player. And, just in case it's not fully clear from my comments thus far, Andy is by far the brightest graduate student that I have mentored in 20+ years as a faculty member.

Sincerely,

Wish Gramm

Professor and Director

