

31 March 2010

Connie Woodhouse
Associate Professor
School of Geography and Development
412 Harvill Building, Box #2
University of Arizona
Tucson, Arizona 85721-0076

Dear Members of the Search Committee:

It is a real pleasure to provide this letter in support of Dr. Kiona Ogle's application for your open position at the Laboratory for Tree-Ring Research. I know several faculty at the University of Arizona and am well aware of the diverse and outstanding research being conducted at your institution, and I can state without hesitation that Kiona would be an outstanding and natural fit. I was very surprised when she contacted me as a referee because she is happy at University of Wyoming, but her application provides a rare opportunity for you to hire one of the bright young superstars in the field.

I have known Kiona since she was a graduate student at Duke because we share similar interests in aridland ecology. She has a rare combination of innovative statistical and modeling expertise and outstanding quantitative skills in physiological/ecosystem ecology and even at that stage of her career senior investigators were seeking her input and advice. We began collaborating in 2009 when Stan Smith, Bob Nowak and I were preparing our DOE renewal proposal for the Nevada Desert FACE facility. This was an extremely important proposal for us; the Nevada FACE facility had been in operation for 10 years and was the only elevated CO₂ experiment located in native aridland communities. The experiment was terminated in 2007 and we spent two years harvesting the site. The goal of the proposal is to synthesize and model the final harvest data and previous 10 years of measurements to develop predictive ecosystem models for aridland responses to global change. We had an obvious need to add a co-PI with expertise in statistical analysis and modeling, but historic collaborations with two of the leading physiological and ecosystem modelers in the field proved to be unproductive. There was no question among the PIs that Kiona was the most obvious choice and the person we very much wanted as co-PI.

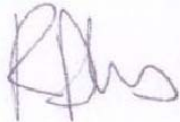
We are in the first months of this project but Kiona has already taken the lead and set the direction for our synthesis and modeling efforts. She is really the critical member of our team at this point for several reasons. First, she is synthesizing diverse datasets from physiological and ecosystem ecologists and using innovative Bayesian approaches she is integrating plant and soil responses to elevated CO₂ while also incorporating the seemingly stochastic temperature and moisture regimes that are characteristic of aridland ecosystems. She is developing modeling approaches that address such diverse topics as ecosystem carbon and nitrogen balance, dynamic root responses, plant phenology and photosynthesis, and whole-plant carbon and nitrogen isotope composition. Our previous collaborators adopted more traditional

modeling approaches and as I stated this approach were generally unproductive. In contrast, Kiona's approach using Bayesian modeling and statistics allows her to identify drivers and interactions that are beyond the scope of previous modeling efforts. Second, Kiona has taken a leading role in our collaboration and serves as the point person for synthesizing datasets from a diverse group of scientists. She is extremely easy to collaborate with and after discussions I often find myself thinking about her points wondering "why didn't I think of that?" It is remarkable to me that our effort is only one of several of her ongoing projects. Typically a junior scientist with her research load would need to sacrifice some aspect of their research program to insure success in other areas, but it is very apparent from my interactions with her and from her publication record that this is not the case with Kiona!

Kiona would be an outstanding contributor and colleague. The fundamental question Kiona addresses in her research is how to not only understand but also to predict how plants respond to global change drivers such as precipitation, temperature, and changes in atmospheric composition. It seems obvious to me that this lies at the core of the goals of your group. She would also be an outstanding representative for the network to the public as well as national efforts such as NEON.

It is obvious I think very highly of Kiona. I can only think of superlatives to describe our past and current interactions and collaboration. The one glaring point I notice in her CV is that she has only been an assistant professor since 2006, when her record suggests someone who is a senior associate or even a full professor! I am stating the obvious when I point out her publication and funding records are both outstanding. I often find myself describing potential when I write letters of recommendation for scientists who are currently assistant professors. That is not the case with Kiona; she already is one of the leading scientists in the field with a well-deserved national and international reputation for combining quantitative analytical measurements with innovative statistical and modeling skills. It is rare when someone of Kiona's abilities and reputation is available on the job market; you are very fortunate to have her in your pool of applicants! She will be an outstanding addition to your School and University. Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Dave Evans".

R. Dave Evans
Professor of Biology
Director, Washington State University Stable Isotope Core Facility