

March 29, 2024

AASC Awards Committee
2024 AASC New Scientist Award in Applied Climatology

Dear Committee Members:

It is with great pleasure that I write to nominate Dr. Kevin Brinson for the 2024 AASC New Scientist Award in Applied Climatology. Kevin completed his dissertation in 2023, receiving a PhD in Climatology here at the University of Delaware. I had the distinct pleasure of serving as the chair of Kevin's dissertation committee. I have known Kevin for approximately 20 years and in short, Kevin is an exceptional scientist who is well deserving of this award.

In my opinion, Kevin Brinson is one of the top applied climatologists in North America. His dissertation was titled "*Exploring Hydroclimatic Variability for Agriculture and Water Resource Applications on the Delmarva Peninsula*". One of the papers that came out of this dissertation was published in **Agricultural and Forest Meteorology**. That paper is titled "*Influence of synoptic weather conditions on atmometers on the Delmarva Peninsula, USA*". The paper compared reference evapotranspiration measured by atmometers, to estimates of evapotranspiration calculated using Penman-Monteith techniques. This paper is novel in at least two ways. It is the first examination of the use of atmometers for evapotranspiration measurements in a unique peninsular environment with very sandy soils. Also, this research improved upon previous atmometer comparison studies by associating atmometer correction factors with synoptic weather patterns to improve the utility of atmometers and remove the need for detailed meteorological analysis to correct atmometer data. Kevin took the lead in all phases of this work including two years of field work to collect the atmometer data, the formulation of the hypotheses for the study, and the final analysis of the data. This research was truly applied as its results can be used to guide the agricultural community in the use of atmometers for evapotranspiration measurements. Another paper from his dissertation has just been accepted for publication in the AASC Journal of Applied and Service Climatology. This is also a very applied work titled "*A Scenario-driven Approach to Estimating Agricultural Irrigation Water Usage for Corn and Soybeans in Delaware, USA*".

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In addition, Kevin has served the applied climate community as the Chair of the AASC mesonet committee, and as a member of the board of the National Mesonet Program to name just a few of the things he has taken on as a new scientist. In summary, Kevin is someone that is passionate about applying climatological knowledge to real-world problems. He is an excellent climate scientist that understands and appreciates the challenges of a changing climate, its potential impacts on hydrologic processes, and the need to apply this knowledge to diverse societal issues. I give Kevin my highest recommendation, enthusiastically and without reservation for this award. I hope that this letter will be helpful in your decision-making process. If I can be of any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Daniel J. Leathers'.

Daniel J. Leathers
Professor and Delaware State Climatologist