MISSOURI BOTANICAL GARDEN
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Selection Committee
Biology Position
Department of Biology
Harris-Stowe State University
3026 Laclede Ave.
St. Louis, MO 63103

June 26, 2020

Dear Selection Committee,

Thank you for the opportunity to apply for the Assistant Professor of Biology position that has recently become available at Harris-Stowe State University. I believe I have the qualifications, experience, ability and motivation to perform these job duties with distinction. I have been teaching at HSSU as Adjunct Assistant Professor for 5 years and I am well acquainted with the University programs, biology courses, faculty, and students. I have an excellent background in all areas of plant and animal biology and evolution, and extensive experience teaching undergraduates in the fields of ecology, evolution, systematics, conservation, genetics, and molecular biology.

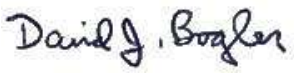
My formal training includes a B.S. in Wildlife Management, B.S. in Horticulture, and M.A. in Biology-Botany, all from the University of Missouri at Columbia. I have a Ph.D. in Botany from the University of Texas at Austin. My doctoral research was on the taxonomy of the genus *Dasylirion*, and the molecular phylogenetics of the Agave Family. I employed classical taxonomic methods and cutting-edge molecular techniques. During this time, I traveled extensively in Mexico and the American Southwest. Following my Ph.D. I was employed as Lecturer at the University of Texas for 6 years, where I taught large (100+ students) biology, botany, ecology, and evolution courses. I eventually left UT Austin for a Post-Doctoral research position in molecular evolution, systematics, and conservation genetics at Fairchild Tropical Botanical Garden in Miami. During this time, I had the opportunity to conduct laboratory research, visit the Bahamas, Cuba, and Puerto Rico, and teach advanced courses at Florida International University. Following my Post-Doc, I returned to my hometown of St. Louis, where I have family connections and responsibilities. For the last 20 years I have worked mostly in botanical research at the Missouri Botanical Garden. I helped complete the 3-volume Steyermark's Flora of Missouri project covering all the species in Missouri. I prepared technical floristic treatments for the Flora North America project, and then was contracted by the USDA to write online interactive keys for all monocots and legumes of the U.S. Following that I managed a combined plant anatomy, microscopy, and molecular lab at MBG. I was very active in grant-writing and was the PI for an NSF grant to purchase a scanning electron microscope for MBG, and also the initial PI and coordinator for the very successful MBG NSF Research Experiences for Undergraduates (REU) program in Plant Systematics, Conservation Biology, and Ethnobotany, which brings 10 undergraduates from diverse backgrounds to

MBG for 10 weeks of research every summer. Six REU interns were recruited from HSSU. I continue to involve HSSU interns with research at MBG with full Garden encouragement and support. Interns funded through the HBCU-UP program have worked with me on projects involving floral morphology (cacao, *Nesocodon, Thalia*), SEM of pollen (Mint Family), pollination biology (bees, nectar), and molecular phylogeny (*Agave*). The results were presented in posters and talks at local and national meetings.

Following a series of funding cutbacks and changes in priority in the Research Division at MBG in 2008-2012 I turned toward teaching to supplement my income. For the last 6 years I have taught courses at the University of Missouri St. Louis (UMSL), St. Louis University (SLU), and Harris-Stowe State University. I retain my status as Research Associate at MBG, where I have an office and full access to research materials, laboratories, herbarium collections, libraries the Garden grounds. My UMSL teaching experience began with a course in Fall 2012 in Plant Micro-techniques in our laboratory at MBG, and later Introduction to Evolution, which I also taught St. Louis University. I began teaching at HSSU in 2015, with Biology 201 Plants and People, covering basic botany and economic uses of plants. This was followed by Biology Survey II, and Bio. 154 (lab) - a survey of the major groups from viruses and bacteria to humans which I have taught almost every semester since. Having a strong interest in ecology and conservation, an interest promoted by MBG, I was very excited to help develop a new degree program in Sustainability and Urban Ecology at HSSU. I developed and taught two of the core SUE courses, Current Trends in Urban Agriculture (Bio. 205) and Introduction to Sustainability (Bio. 204). With the support of the MSIEP Program I worked with over 10 HSSU interns on projects involving urban agriculture initiatives (mushroom farming, hydroponics), solar energy, energy benchmarking of campus buildings, and pollinator gardens.

Recently I have been involved with efforts to boost the capacity for STEM research at HSSU. I participated in efforts to design a new Certificate in Biotechnology. I developed and taught an introductory course on basic molecular biology and DNA lab techniques (Bio. 152). This course will eventually be taught at a more advanced level as a core course in the Biotechnology program. I set up a basic DNA lab facility at HSSU (room 217) and mentored select students in molecular projects. I initiated an NSF grant pre-proposal to foster graduate training of minority students in evolution, ecology, and conservation, currently under review. The NSF Centers for Research Excellence in Science and Technology (CREST) program would fund master's degree programs for up to 50 students at local universities. In turn, the CREST students would mentor undergraduates at HSSU. The funds, $5 million over 5 years, renewable, would fund all the CREST graduate student expenses as well as improvements to the biology teaching and research infrastructure at HSSU. This program would open significant opportunities for research in molecular biology and STEM at HSSU.

Thank you for your attention. I think my background and experience are well-suited for this position and I hope you do too. I would be happy to discuss this opportunity in more detail.



Ph.D.

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