Plant Genomics Lab Manager

About the Santa Barbara Botanic Garden:
Santa Barbara Botanic Garden’s mission is to conserve California native plants and habitats for the health and well-being of people and our planet. Since 1926, Garden staff have developed and maintained an intimate knowledge of the California flora, with an emphasis on the plants and vegetation communities of California’s Central Coast and the offshore islands. Today, we take a comprehensive approach to its conservation from genes to ecosystems, with plant systematics, rare plant conservation, community ecology and habitat restoration functions. This allows us to more thoroughly tackle the conservation challenges of our day, such as habitat loss and fragmentation, invasive species, and climate change.

A Day in the Life:
As the Plant Genomics Lab Manager, you’ll support the Garden’s Biodiversity Team by maintaining laboratory facilities and managing their use by research scientists, staff, and volunteers. You will participate in Biodiversity Team research activities and occasionally collaborate on projects with other staff of the Conservation and Research Department to support the Garden’s conservation work. Your duties will range from implementing existing projects in the field and lab to analyzing data, and collaborating on writing reports. Your work will focus on understanding, protecting and restoring California’s biodiversity using molecular tools. You will help collect and analyze data on rare plants via population genomics studies, aid in phylogenomics studies, as well as help reveal species interactions using metabarcoding approaches. You will work in collaboration with colleagues in and outside of the Garden, as well as education and outreach related to your work. We are especially interested in candidates with a combined love of laboratory work and analytical skills to help us tackle applied questions that will conserve biodiversity. This full-time (40 hours per week) position on the Biodiversity Team reports to the Conservation Geneticist.

Applications should include a curriculum vitae, a cover letter detailing your interest in the position and relevant qualifications, and a writing sample (e.g., a peer reviewed publication, report or other product).

What You’ll Do:

Fieldwork Duties
● Collect plant leaf tissues;
● Collect occasional herbarium vouchers;
● Collect data using Field Maps for ArcGIS;
● Participate in planning and implementing field work, including on single and multi-day field trips for genomic tissue collection and/or plant survey work;

Office Duties
● Conduct analyses in collaboration with Biodiversity Team Principal Investigators;
● Report and write papers in collaboration with Biodiversity Team Principal Investigators;
● Assist and manage volunteers and interns as needed in the genetics lab with Biodiversity Team Principal Investigators;
● Obtain price quotations and orders supplies and equipment as needed;
● Initiate work orders for in-house (and as required external) service and maintenance of equipment;
● Maintain databases of equipment, supplies, samples (DNA, tissue bank, etc.), and protocols;

Laboratory duties
● Extract DNA;
● Perform DNA quantitation;
● Conduct gel electrophoresis;
● Perform PCR;
● Conduct library preparations for high-throughput DNA sequencing;
● Coordinate disposal of waste chemicals. Implement policy for use of the laboratory, including safety protocols;
● Maintain organized, clean, safe, and efficiently operating laboratories;
## Education and Outreach
- Participate in Garden tours as needed;
- Mentor genomics laboratory students, staff, and volunteers in day to day project implementation in collaboration with Biodiversity Team Principal Investigators;
- Present oral and poster presentations at scientific meetings;

## You Must Be Able To:
- Manage projects to timely completion on budget;
- Use a computer proficiently, including working knowledge of Microsoft applications (e.g., Outlook, Excel, Word, and PowerPoint) and R/Rstudio.
- Learn new computer programs as necessary;
- Work under pressure and meet deadlines;
- Communicate well both verbally and in writing;
- Contribute to a positive work environment that fosters learning and team-building;
- Work cooperatively with peers at SBBG (in Conservation & Research and in other departments) and other institutions (e.g., herbaria, labs, community organizations);
- Support the Garden’s mission and goals;
- Perform occasional strenuous physical work including:
  - Sitting for up to 2 hours at a time and using a computer or microscope for lengthy periods;
  - Standing/walking for extended periods of time;

## You Will Definitely Need:
- Master’s degree from an accredited four-year college or university in biology, ecology, botany, environmental science, conservation biology, or closely related area, and five or more full-time years (or equivalent) of relevant experience;
- Demonstrated ability to work with high degree of autonomy and accountability;
- Experience executing scientific research projects;
- Working knowledge of molecular genetic techniques;
- The ability to follow instructions, work successfully with others, and work independently with minimal supervision;
- Excellent attention to detail and organizational skills;
- Manual dexterity sufficient to perform laboratory work and curate plant tissue specimens;
- Computer proficiency including ability to learn new bioinformatics pipelines, with training as necessary, such as Stacks, QIIME2, and ipyrad;
- The ability and willingness to hike in remote locations for fieldwork;
- Reliable transportation to/from the Garden;
- Valid US driver’s license;

## It Would be Nice if You Had
- Experience using ArcGIS to create maps and analyze data;
- Experience with the California flora or plants of the US Intermountain West.

## More About Us
The Garden is a beautiful place to work and your work will make a direct impact on biodiversity conservation in California. In this role you will primarily work onsite at the Garden using varied techniques in a molecular laboratory setting. However, there are also opportunities to learn more about the plants we study through growing plants in our greenhouse, examining the inside of a leaf using histological techniques, or catching a glimpse of plant microstructures on the SEM in varied spaces here at the garden. There is almost always a field component to the projects we work on. Opportunities to collect plants we study both on the mainland and California Channel Islands are part of the role. In addition to beautiful views, birds, and fantastic flora, outdoor work environments also include exposure to extreme temperature fluctuations, rain, dust, allergens, poison oak, insects, small wild animals, and sun exposure.
Disclaimer: The employee must be able to perform the essential functions of the position satisfactorily, and if requested, reasonable accommodations will be made to enable employees with disabilities to perform the essential functions of their job, absent undue hardship.

Santa Barbara Botanic Garden retains the right to change or assign other duties to this position.

Expected Timeline
An ideal candidate for this position will be available to begin work in January 2024.

Salary Range: $26-$30/ hour, commensurate with experience

For more information, and to apply, please visit https://sbbotanicgarden.org/about/employment/