Los Angeles
Center for Urban Natural
Resources Sustainability
Rooted in Research

Request for Proposals:
Urban Forest Equity Visiting Scholars

Los Angeles Center for Urban Natural Resources Sustainability
El Pueblo de Los Angeles, 125 Paseo de la Plaza, Los Angeles, CA 90012
Submit your application via **https://tinyurl.com/LACenterVisitingScholar**

About the LA Urban Center

City Plants will administer the scholars program in partnership with the Los Angeles Center for Urban Natural Resources Sustainability (LA Urban Center) and TreePeople. Funding for this project is provided through a grant awarded to TreePeople by Accelerating Climate Resilience, a sponsored project of Rockefeller Philanthropy Advisors.

The LA Urban Center operates through a partnership among the USDA Forest Service, Pacific Southwest Region and Research Station and the City of Los Angeles. Joining in this collaboration are the many Federal, State, and local government partners as well as academia, industry, private, and non-profit organizations concerned with urban natural resources and socioecological resilience, including City Plants and TreePeople. The LA Urban Center's mission is to serve as a "Research Destination Hub" where environmental, urban ecosystem, urban natural resource, and socioeconomic studies will enhance the urban forests, urban waterways, urban wildlife, green infrastructure and lives throughout the Los Angeles metropolitan area. The LA Urban Center is a physical place to focus research activities and communication as well as a hub in the network of relationships among a growing community of scholars, policy makers, cooperators and their facilities focused on urban natural resources sustainability.

VISION

Improved and enhanced urban natural resources and quality of life throughout the Los Angeles metropolitan area, from urban to rural communities.

MISSION

To serve as an information and research destination hub that fosters collaboration, generates new science, delivers information and technology to aid application, and engages diverse communities and knowledge bases through shared learning.

About this Visiting Scholars Opportunity

Southern California is home to a robust network of nonprofit, research, city, and government stakeholders dedicated to protecting and enhancing the urban forests of Southern California and ensuring equal access to trees and their benefits. Many recent efforts have been made to evaluate the state of the urban forest, its distribution, its management, and its economic, ecological, and social services within the Los Angeles region. Recently, specific and measurable urban forestry goals were established in Mayor Eric Garcetti's Green New Deal (http://plan.lamayor.org/), including:

- **Target Goal:** Increase tree canopy in areas of greatest need by at least 50% by 2028 to grow a more equitable urban forest that provides cooling, public health, habitat, energy savings, and other benefits
- **Target Goal:** Plant and maintain at least 90,000 trees citywide by 2021
- **Target Goal:** Complete a citywide inventory by 2021 and an Urban Forest Management Plan by 2025
- **Target Goal:** Update and align City policies and procedures to grow and protect public and private trees

Both Los Angeles County and the City of Los Angeles, as well as other cities within the County, are actively pursuing the creation of urban forest management plans, and efforts to complete tree inventories on public lands within those jurisdictions are underway. Urban tree canopy prioritization is increasingly important to researchers, community stakeholders, and policy makers.

In this call, the LA Urban Center is soliciting proposals for one or two Visiting Scholar(s) to contribute toward the urban forestry goals outlined above. The Scholar(s) will analyze currently available plantable space and the potential for urban canopy expansion and prioritization through a public health and equity lens. Analysis may include: streets and public right-of-ways, including parkways; parks; residential; and other land uses, such as commercial/mixed-use, industrial, and/or protected areas.

While the Visiting Scholar(s) will be expected to work independently to complete this call's objectives, they will have the opportunity to collaborate with representatives from the key partners: TreePeople, City Plants, the LA Urban Center, the City of Los Angeles Board of Public Works, as well as consultants working on related tasks. While the Visiting Scholar(s) is/are not expected to be experts in spatial and cost benefit analysis techniques, some literacy in these methods may prove beneficial. Chosen Scholar(s) will be given access to the *Los Angeles County Tree Canopy Cover Assessment* LiDAR-based data produced in 2019.

Selected Visiting Scholar(s) will implement the objectives and tasks outlined below, and will be expected to produce a final report as well as a presentation to be shared via webinar or in-person meeting. Note that some tasks listed below may occur concurrently.

OBJECTIVE 1

Goals: Determine existing tree canopy in target Disadvantaged Communities, as selected together with City Plants, LA Urban Center, and TreePeople, and quantify the number of trees required to reach desired canopy levels.

Description: Determine Disadvantaged Communities' current percent tree canopy coverage and assess the existing gap between current coverage and what would be needed to improve public health and enhance climate resilience.

Proposed methodology and tasks:

A. Using "Ideal Canopy Coverage" method developed by TreePeople, or other method, determine the number of trees to be planted for each area. Proposed steps include:
   i. Determining acreage of existing canopy, as derived from LiDAR dataset
   ii. Determine desired canopy acreage using low / moderate / high tree canopy scenarios, as informed by Los Angeles Urban Cooling Collaborative research:
      - Low scenario = 25% relative increase (baseline x 1.25)
      - Medium scenario = 100% relative increase (baseline x 2)
      - High scenario = 40% tree canopy cover regardless of baseline.
   iii. Determine the amount of acreage needed to plant and convert to sq.ft.
   iv. Determine the number of trees needed to meet the canopy goal by using predetermined ratios for small, medium, or large stature trees

B. Use canopy data for existing trees to identify existing tree species constituting the County's canopy. Various approaches (including Raku's Tree Species Identifier (TSI – 2018) exist to accomplish this, and the scholar will formally evaluate these options.

OBJECTIVE 2

Goals: Determine optimal planting locations for each target area to achieve desired canopy, with consideration to addressing predominant infrastructure conflicts.

Description: The Los Angeles Tree Canopy Coverage Assessment provides *existing* and *possible* tree canopy. Possible tree canopy includes areas where it is theoretically possible to establish tree canopy, and includes both pervious and impervious areas. Possible tree canopy estimates must be ground-truthed to produce a modified tree canopy target, which we will call *potential* tree canopy. Potential tree canopy must also be reconciled with common infrastructure conflicts, such sidewalks (which impinge on access) and utility lines (which can raise fire risk).

Proposed methodology and tasks (proposed in this order to permit Objective 2 to occur concurrently with Objective 1. The order of objectives is subject to change if one Visiting Scholar is selected to complete both objectives)**:**

A. Identify the predominant infrastructure conflicts that urban trees face in the region (e.g., narrow sidewalks, street widening, or overhead power lines) and produce case studies for addressing these. This task will have the benefit of using the "S-tree-T" project conducted by Rios Clementi Hale Studios for TreePeople in 2019 as a starting point. Other literature and source material will be identified by the scholar in order to create distinct cases of how tree/infrastructure conflicts can be addressed to reduce tree removal and promote maximum tree canopy. Case studies will be used to inform policy adoption in the City of Los Angeles and other local jurisdictions through actions such as modification of design standards and changes to sidewalk replacement protocols.
B. Conduct randomized ground-truthing to validate possible planting locations, taking into consideration potential infrastructure conflict (i.e., hardscape, utility lines). Use the L.A. County Tree Canopy Assessment data to select random suggested planting locations as informed by Objective 1, and apply a ground-truthing methodology. One

example is the methodology used in the US Forest Service LA Million Tree study.[1] The final product should present the best-case scenarios for the selected planting locations to serve as a model generalizable to areas similar to the case study zones.

Objective	Task	Suggested Timeline
1) Determine existing tree canopy in target Disadvantaged Communities, as selected together with City Plants, LA Urban Center, and TreePeople, and quantify the number of trees required to reach desired canopy levels for benefits including public health protection.	1A: Work with Geographic Information Systems (GIS) operator (hired separately) to overlay LA County Tree Canopy Cover Assessment Data Disadvantaged Communities	2 months
	1B: Determine the number of trees to be planted for each area	3 months
	1C: Use canopy data for existing trees to identify existing tree species constituting the urban forest in selected areas	3 months
2) Determine optimal planting locations for each target area to achieve desired canopy identified in Objective #1, with consideration to addressing predominant infrastructure conflicts.	2A: Produce case studies for addressing a select number of hardscape and other infrastructure conflicts	5 months
	2B: Conduct randomized ground-truthing to validate possible planting locations	3 months

Award

Interested applicants are invited to submit an application for *one or both* of the objectives referenced above. The award is $12,500 per Objective, or $25,000 for both of the Objectives. The Visiting Scholar(s) agreement will be administered through LA Urban Center partner City Plants. Payments are for completed phases of the selected project(s), on a quarterly basis. Final payment will be made after the Scholar presents completed work in the spring of 2021.

Proposal Requirements

Applicants should submit the following online via **https://tinyurl.com/LACenterVisitingScholar**:

1. Statement of interest & proposed scope of work, including:
   1.1 Why you are interested in this topic
   1.2 Proposed approach & methodology
   1.3 Experience with similar work, including specific references to pertinent projects in your portfolio
2. Proposed timeline of deliverables

[1] Wu C., Xiao Q., McPherson G. (2008). A method for locating potential tree-planting sites in urban areas: A case study of Los Angeles, USA. *Urban Forestry & Urban Green.*, 7, pp. 65–76, 10.1016/j.ufug.2008.01.002.

3. Proposed budget
4. CV or resume
5. List of references

How to Apply: Submit your application online by May 26, 2020 at 9:00 am PDT via https://tinyurl.com/LACenterVisitingScholar

Important Dates

- **Application due:** May 26, 2020 at 9:00 AM PDT (early submissions encouraged)
- **Application review:** May 26 - 29, 2020
- **Applicants notified of decision :** First week of June 2020
- **Visiting Scholar onboarding:** June 2020
- **Project duration**: June 15, 2020 – March 31, 2021
- **Spring 2021 presentation on findings**: TBD – Visiting Scholar(s) will present findings to LA Urban Center stakeholders, via webinar or in person

Questions? Please email Rachel O'Leary at rachel.oleary@lacity.org

TREEPEOPLE

Funding for this project is provided through a grant awarded to TreePeople (https://www.treepeople.org/) by Accelerating Climate Resilience, a sponsored project of Rockefeller Philanthropy Advisors. Partners include City Plants (http://cityplants.org/) and the LA Urban Center for Natural Resources Sustainability (http://laurbanresearchcenter.org/).