

**Permit 2021-007**

Name:

Lamalani Suarez

Department or Organization:

Integrated Bioscience

Email Address:

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Are you requesting renewal of a previously approved permit applicaton?

No

Type of activities at The University of Akron Field Station and Bath Nature Preserve

Research

Title of project or class name and course number:

validation of VIS-NIR spectroscopy to measure soil organic carbon

Date/Dates requested:

Nov 2021 - Nov 2022

Number of people in group:

4

I am requesting permission to use a Research Area.

No

I am requesting permission to use a Sensitive Area.

Yes

I am requesting permission to use areas outside of the designated Research or Sensitive Areas.

No

I would like to use the Martin Center for Field Studies and Environmental Education for this prop...

No

Will the activity involve destructive sampling/collecting?

No

Which Sensitive Areas?

Garden Bowl

Provide a brief description of (1) your proposed activities, (2) goals, and (3) impacts of your u...

I am validating the use of in-situ VIS-NIR spectroscopy to measure soil organic carbon. The goals are to  
1) compare accuracy of VIS-NIR spectroscopy to the traditional analysis of dry combustion 2) determine

how many sample points and the sample design that are required to capture soil organic carbon variation across a field. The impact of my research at the Bath Nature Preserve is minimal. The field will be walked on and spectrometers are mounted on a dolly. The spectroscopic measurements are taken by pushing a 1/2" probe into the soil up to 1m deep. The probe does not disturb the soil or vegetation. A traditional 1" soil core (up to 60cm deep) will be removed for dry combustion laboratory analysis. Core removal minimally disturbs the soil.

By checking this box, I agree to the above terms and state that all of the above information is c...  
I agree