



# Prescott College



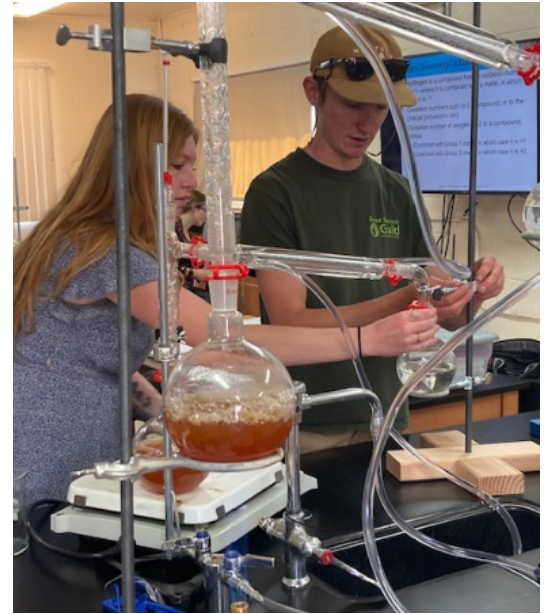
## Environmental Studies Restricted Funds Report 2024

Thank you for your current and past support of the "Environmental Studies Undergraduate Program. It is our honor to provide an update on the expenditure and impact on this fund over the past few years, and we look forward to answering any questions you may have regarding these projects.



## Campus Earth Sciences and Life Sciences Labs

As the college and the ES department re-committed to supporting the Bachelor of Science in ES, we fully remodeled the Life Science and Earth Sciences labs and Lab Prep Room, paid for in 2013-2014 with PC Capital improvements funds. However, starting in 2017, we recognized the need to upgrade the lab and classroom gear to provide stronger support for Physics, Chemistry, General Earth Sciences, Biology, and other Life Sciences courses. We set out to inventory all lab equipment, chemicals, glassware, etc., and replace out-of-date items and/or upgrade in all those categories. For example, nearly all of the chemicals we owned had to be disposed of (a complex process in itself) as they were way out of date, in some cases dangerously so, and replaced. With the help of a new Physics and Chemistry Adjunct Instructor (James Murray), we have updated our Physics and Chemistry labs and continue adding equipment each year as needed with the help of this fund.



## Equipment and Supplies

Besides the classroom/lab gear mentioned above, ES has also been improving and expanding our field and outdoor lab equipment to support classes in Geology, Soil Science, Natural History and Ecology, Restoration Ecology, Agroecology, Conservation Biology, and others through purchases and in-kind donations. This includes items such as:

- Spotting scopes, tripods, and binoculars
- Handheld GPS units
- Various simple field tools such as meter tapes, calipers, rangefinders, inclinometers etc.
- Soil sampling kits, sieves, flagging, etc.
- Handlenses, rock hammers, and field geology test kits



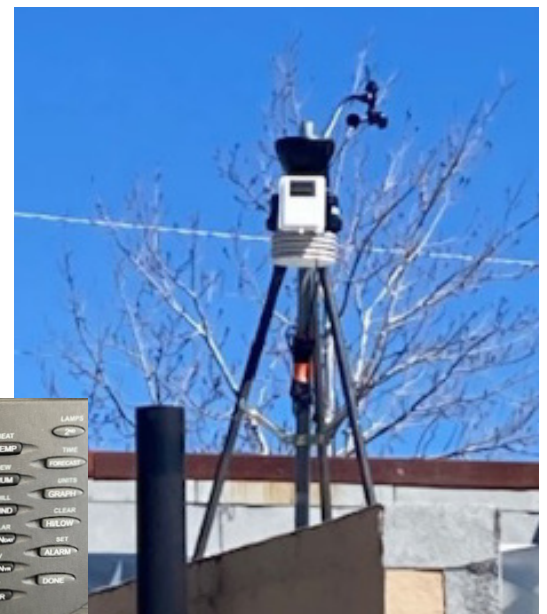
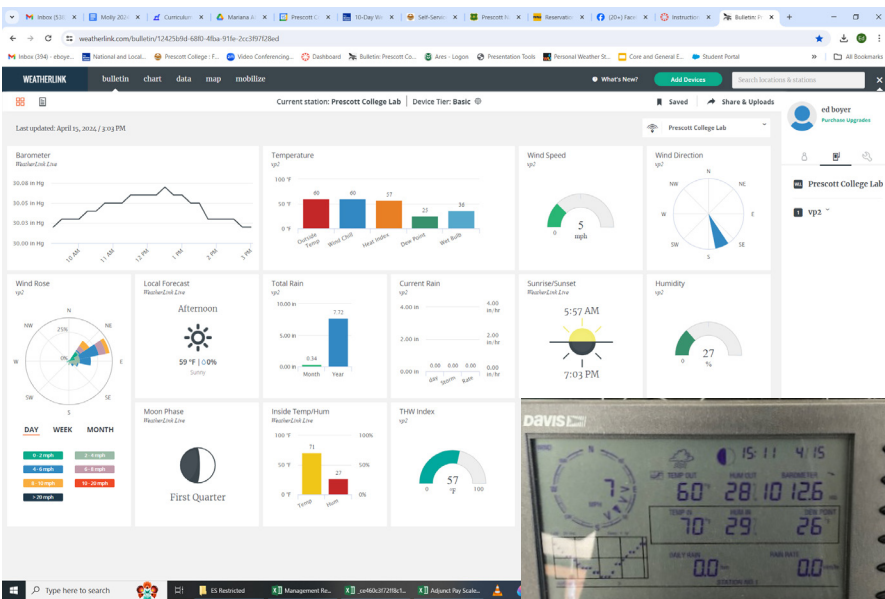
## Herbarium And ES Archive/Reading Room And Natural History Displays

As some faculty have retired and moved off campus, we were able to receive donated books, articles, files, and specimens by converting two small rooms in the Sinagua Building into an "Environmental Studies Archive and Reading Room" and the "Carl Tomoff Herbarium" which houses a small herbarium of plant specimens serving as both a teaching and research collection. A small display case was purchased and filled with local natural history artifacts, enhancing the main lobby area of the Sinagua Building.



## Campus Greenhouse

Constructed in 2021, the 180sq foot Santa Barbara Montecito Greenhouse kit was purchased and assembled by PC facilities employees and various student and faculty volunteers. It sits behind the Mogollon Life and Earth Science labs.



## Weather Station

The Davis Vantage Pro 2 Weather station was purchased in Feb of 2022 and has been in operation since that time. Located on the roof of the Mogollon Building, the control/readout panel is inside in the Earth Science lab and available to students and faculty there as well as on our weblink.



## Walnut Creek Center Support

In the past two years, we have started upgrading the Walnut Creek Center for Education and Research to better support field trips, field classes, and independent/mentored studies students from the college. That has entailed investing in better internet, Wi-Fi service at the center, some minor improvements to the main classroom, kitchen, meeting space, and renovating an existing outbuilding into a functional bathroom (until this time all users shared one small outhouse on the property). The new bathroom and shower were operational just in time for the first major users of the season, April 5, 2024.





## Undergraduate Student Project Support

A recent example of this activity is the work of senior student Dylan Moran. His senior project concerns the forest ecology and genetics of White Pine:

*"In recent history, roads, agriculture and urban development changed the structure of our old growth forests particularly for Eastern white Pine...Using coding programs such as R, data analysis can be done to create charts and graphs, and an analysis of Heterozygosity and inbreeding to understand how population fragmentation affects gene flow of old-growth forests to derive implications of post-tertiary succession humans have on ecosystems."*

In support of this project, ES Restricted Funds were used to send Dylan to the genetics lab of Assistant Professor of Forest Genetics Dr Jeremy Johnson (Department of Forestry, Michigan State University) to learn ecological genetics techniques from DNA extraction in the field to DNA sequencing in the lab.