

Santa Cruz-Watsonville





Inquiry-Based Learning in Environmental Sciences

PRESENTS: JOE SAPP

WHS SCIENTIST IN RESIDENCE, 2011-2012





Here I am collecting ants to identify their species... with my field assistants' help! We are working at the Sagehen Creek Field Station, a UC Berkeley Field station in the Tahoe National Forest.

[Pictured from left to right: Joe Sapp, Don Brown (WHS teacher), Mikayla Richter (UCSC undergrad), Hannah Nolan (UCSC undergrad)

Some stuff about me:

- @ Age: 30
- @ Where I grew up: California and Illinois
- @ High School: University of Illinois Laboratory ("Uni") High School in Urbana, Illinois
- @ Favorite subject in high school: Biology
- @ College (undergraduate): UC Berkeley
- @ Some of my favorite things: Traveling, soccer, food, hammocks
- Something weird about me: I know more rap lyrics than you would think. The same goes for cartoon theme songs and commercials from my childhood!
- What I think or do when I get frustrated: I try to realize I'm frustrated and take a break if I can. Sometimes a break just means doing some other kind of work, but if I'm lucky it means taking a walk, talking to friends, or watching a movie.

These "slavemaking" ants (Polyergus breviceps) steal brood (larvae and pupae) from other ant colonies!



Stolen ants (the silvery-black ants here, Formica argentea) grow up to be adult "slaves" that live and work with the "slavemakers" (the red ants) like members of the same family. They act like they don't know they were kidnapped.

What I study

I study ants that kidnap other ants when they are too young to realize they've been stolen. The kidnapped ants become workers in the colony that stole them. I want to understand how this affects the lives of both species. Are they more aggressive? How do they treat each other?

Being a scientist is great because I get to make up my own questions like those and then try to solve them. Also, I can choose questions that keep me doing things I love: Watching and learning about animals outdoors. Understanding how animals work helps us realize how valuable they are to our world and how we can protect them.

Teachers have had a big impact on me ever since kindergarten. I am inspired by how teachers can reveal new worlds to their students and give them skills to see things they previously didn't see. I am so glad the biological world was revealed to me by a series of enthusiastic teachers and I want to pass that gift on to more students.



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