

Field Name	Field Value
Name	Todd Blackledge
Organization	Biology - U Akron
Phone	330-972-7264
email	blackledge@uakron.edu
Web_Address	http://gozips.uakron.edu/~tab27/
Renewal	No
Permit_Number	2010-006
Activity	Research
Project	Biomechanics of inchworm caterpillar silk
Dates	May 2010 - May 2012
Group_Size	2
Research_Area	Yes
Beefys_Woods	Yes
South_Woods	Yes
Sensitive_Area	No
Other_Areas	No
Public_Areas	Yes
Steiners_Woods	Yes
Building	No
Prep_Work	
Sampling_Collecting	Yes
Sampling_Methods	Caterpillars will be collected with their silk threads. The caterpillars will be preserved for later identification. ~10 individuals maximum will be collected for any one morphotype (probably no more than 50 total caterpillars)
Description	Silks are among the strongest and toughest known biomaterials. They are produced by many different arthropods but are described mainly from spiders and silkworms. We will scout the forest for inchworms (Geometridae) hanging from their silk threads. The caterpillars use these threads to abseil from the tree canopy and to rest out of reach of predators. We will collect the silk for biomechanical analysis back at UA and the caterpillar for identification. We will compare silk performance to previous research on spiders and silkworms. This will provide the first ever insight into the silk produced by inchworms and form the basis of a UA undergraduate's honors thesis research. The small number of caterpillars collected should have minimal impact on these prolific species.

Agreement	Accept
-----------	--------