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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  Relative Humidity Relative humidity (RH) is a term used to describe the amount of water vapor that exists in a gaseous mixture of air and water. temperature, pressure, and dew point all will impact the amount of water that can be held in air in a gaseous state. Transpiration (water loss from the leaves of plants) will influence the amount of moisture in the air and therefore can influence temperature. Relative humidity is major abiotic factor that helps to determine the diversity of plant types around the creek habitat. This in turn will determine the diversity of animal life. Identification of average temperature and relative humidity may help us better understand the biotic condition of the creek habitat and the microhabitats that exist within it. We use to use sling psychrometers (right) to measure RH. Two thermometers, one with a moistened piece of gauze wrapped around the bulb, were attached to a sling which could be spun around in circles for three minutes. As moisture evaporated from the "wet bulb" heat was taken away more than the "dry bulb". Comparing the difference in temperatures between the two bulbs and referencing air temperature allowed us to calculate RH. In the Fall of 2007 we started using [Vernier LabPro](http://www.vernier.com/) equipped with a [Relative Humidity sensitive probe](http://www2.vernier.com/booklets/do-bta.pdf) (left) which is connected to a laptop running [Logger Pro Software](http://www.vernier.com/soft/).  Measurements taken by students have demonstrated that ground cover has a significant impact on these two measurements. Rather dramatic differences can be observed when comparing areas of no vegetation, low vegetation, moderate vegetation, and dense vegetation. the distribution of various insect species has a direct correlation to the RH which in turn is affected by type and amount of ground cover.     |  | | --- | | Copyright © 2008 Amador Valley High. All Rights Reserved. Reproduction in whole or in part in any form or medium without express written permission of Amador Valley is prohibited. | |