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|  | [Note: Best if viewed at Full Screen]  Introduction  Part 3            We based our final decision on what to test for on two points.  First, pH levels would ideally be the most practical things to test given our limited resources.  Second, the circumstances of the few years seemed to point to acid deposition as the single most promising reason for the recent drops.  It has been a year since El Niño, a weather phenomenon that brought countless amounts of excess (acidic) rainfall to our area, and it seemed to us that it might not be a coincidence that this happened to coincide with the population drops.  At an acid deposition measuring facility known as NADP/NTN Monitoring Location CA88, in Davis, California, pH levels in rainwater measured as low as 5.5 percent over the winter of 1997-1998.  Levels as low as this in an area so close serve as a testament to the serious biological threat pollution in our rainwater could pose to the ecology of the Arroyo Del Valle creek..  (this information is from the second site on the bibliography)         Subsequent research revealed that acid rain did in fact have the potential to seriously upset the ecological balance in aquatic environments.         Acid deposition is caused by the emissions of sulphur dioxide and nitrogen oxides into the atmosphere, mainly from the burning of coal for electricity and the combustion of fuels in vehicles.  Although these gasses are present naturally to some degree, studies have shown that 90-95% of them are from human sources.  Once in the atmosphere, they can be chemically converted into nitric and sulphuric acids, later returning to earth as acid rain, snow, or fog.  [(1)](http://docs.google.com/biblio.html)         Precipitation by nature, without added pollutants, is slightly acidic - it reacts with alkaline chemicals in the soil, air, and water to essentially �balance out� to a neutral pH of 7.  But when rainwater and other precipitation is tainted by pollutants that cause it to become more acidic, these more basic chemicals can be quickly used up, leaving the environment open to the harmful effects of the polluted rain. [(1)](http://docs.google.com/biblio.html)    [Back to Part One](http://docs.google.com/intro.html)   [Back to Part Two](http://docs.google.com/intro2.html)    [Part Four](http://docs.google.com/intro4.html) |

*This Web Site is Best viewed with 256 or more colors.*

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