



CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY

<b>Name(s)</b> Abraham Guerrero; Scott Mendoza; Sumner Thomas	<b>Project Number</b>  22807								
<b>Project Title</b> Deer Deer Me									
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Objectives/Goals</b>            To find deer population in Anderson Valley.         </td> <td style="width: 50%; vertical-align: top;"> <b>Abstract</b> </td> </tr> <tr> <td colspan="2"> <b>Methods/Materials</b> <ol style="list-style-type: none"> <li>1. To sample randomly throw a rock.</li> <li>2. Two students pull string taut.</li> <li>3. Students walk in circle, while keeping taut. Count the pellet groups in the plot.</li> <li>4. Do another transect at the same site. Record the information.</li> <li>5. The area of the circular plot is .01 acres we sampled X=plots</li> </ol>           Example: <math>.01 \times 20 = .2</math>            6. How many fecal pellet groups counted by group?            7. We must now convert the number of fecal pellet groups found on Internet Example: <math>.2</math> acres to the number found on one acre.            Example: <math>(\text{Total pellet groups or}) 100 / .2 = 800 / 1.0 = (\text{total acreage sampled})</math>            8. Deer defecate 13 times a day, so divide 13 into the total pellet groups per acre to find (deer days) use per acre.            9. We are trying to calculate the number of deer per square mile. There are 640 acres in a square mile.            10. Because there are 365 days in a year#            Example: <math>365 / 24960.00 = 68.38</math> or 69 deer per sq. mile.         </td> </tr> <tr> <td colspan="2"> <b>Results</b>            &lt;sum&gt; We took 20 transects or plots.  <math>.01 \times 20 = .2</math> acres (A circular transect is .01 acres.)            &lt;sum&gt; We found 35 fresh pellet groups.            &lt;sum&gt; We must change <math>.2</math> acres into 1 acre.            35 fresh pellet groups divided by <math>.2</math> acres equals 175 fresh pellet groups over 1 acre.            &lt;sum&gt; Deer defecate about 13 times a day <math>175 / 13 = 13.46</math> round up.            &lt;sum&gt; There are 640 acres in a sq. mi. <math>13 \times 640 = 8960</math> "Deer days use per sq. mi. in Anderson Valley"            &lt;sum&gt; There are 365 days in a year. <math>8960 / 365 = 24.54</math> round up to 25 deer per sq. mi.            &lt;sum&gt; We estimate there are about 25 deer per sq. mi. in Anderson Valley.            &lt;sum&gt; In Price County there were estimated to be 17-25 deer per square mile.         </td> </tr> <tr> <td colspan="2"> <b>Conclusions/Discussion</b>            Our hypothesis was that we believed that there would be about 10 deer per sq. mi. We thought this         </td> </tr> </table>		<b>Objectives/Goals</b> To find deer population in Anderson Valley.	<b>Abstract</b>	<b>Methods/Materials</b> <ol style="list-style-type: none"> <li>1. To sample randomly throw a rock.</li> <li>2. Two students pull string taut.</li> <li>3. Students walk in circle, while keeping taut. Count the pellet groups in the plot.</li> <li>4. Do another transect at the same site. Record the information.</li> <li>5. The area of the circular plot is .01 acres we sampled X=plots</li> </ol> Example: $.01 \times 20 = .2$ 6. How many fecal pellet groups counted by group? 7. We must now convert the number of fecal pellet groups found on Internet Example: $.2$ acres to the number found on one acre. Example: $(\text{Total pellet groups or}) 100 / .2 = 800 / 1.0 = (\text{total acreage sampled})$ 8. Deer defecate 13 times a day, so divide 13 into the total pellet groups per acre to find (deer days) use per acre. 9. We are trying to calculate the number of deer per square mile. There are 640 acres in a square mile. 10. Because there are 365 days in a year# Example: $365 / 24960.00 = 68.38$ or 69 deer per sq. mile.		<b>Results</b> <sum> We took 20 transects or plots. $.01 \times 20 = .2$ acres (A circular transect is .01 acres.) <sum> We found 35 fresh pellet groups. <sum> We must change $.2$ acres into 1 acre. 35 fresh pellet groups divided by $.2$ acres equals 175 fresh pellet groups over 1 acre. <sum> Deer defecate about 13 times a day $175 / 13 = 13.46$ round up. <sum> There are 640 acres in a sq. mi. $13 \times 640 = 8960$ "Deer days use per sq. mi. in Anderson Valley" <sum> There are 365 days in a year. $8960 / 365 = 24.54$ round up to 25 deer per sq. mi. <sum> We estimate there are about 25 deer per sq. mi. in Anderson Valley. <sum> In Price County there were estimated to be 17-25 deer per square mile.		<b>Conclusions/Discussion</b> Our hypothesis was that we believed that there would be about 10 deer per sq. mi. We thought this	
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<b>Summary Statement</b> We estimated deer population using circle transect plots and fecal pellet counts.									
<b>Help Received</b> Our parents provided transportation to project site.									