



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

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<b>Project Title</b> Effects of Auditory Familiarity in Mate Selection for <i>Acheta domesticus</i>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of my project is to determine if the familiarity of a male house cricket's chirps will have an effect on the length of each male's courtship call and female mate selection. <b>Methods/Materials</b> Cricket nymphs were sexed and separated into one group of females and two groups of males. Once mature, one male group was placed in a box next to an aquarium with a group of females and were allowed one week to hear each other's chirps. Female crickets were placed individually in observation chambers with males whose chirps they have heard, other females with males whose chirps they have not heard, and some females with both. The mate selection, mating call lengths and other key points in the mating process were timed and recorded. <b>Results</b> Females preferred familiar males over unfamiliar males. Unfamiliar males also had to produce a longer mating call than the familiar males before the female would mount the male. <b>Conclusions/Discussion</b> I concluded that auditory familiarity does have an effect on mate selection and mating call length.	
<b>Summary Statement</b> I tested to see if the familiarity of a male cricket's chirps had an effect on female mate selection and male mating call length by placing females in observation chambers with familiar or unfamiliar males, and some with both.	
<b>Help Received</b>	