



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Jasper Garrett	Project Number J1507
Project Title The Affinity of Boletus edulis to Tree Species	
<p style="text-align: center;">Abstract</p> <p>Objectives The study of which tree species hosts the highest density of the mushroom <i>Boletus edulis</i> in the Santa Cruz area.</p> <p>Methods</p> <ol style="list-style-type: none">1. Forest ecosystems2. <i>Boletus edulis</i> fruit3. Device for measuring4. Device for recording data <p>Results 71% of <i>Boletus edulis</i> were found growing around <i>Quercus agrifolia</i> trees, as opposed to 28% growing near <i>Pinus radiata</i> with less than one percent near <i>Sequoia sempervirens</i>.</p> <p>Conclusions As current literature suggests, <i>Boletus edulis</i> can be found growing around a variety of tree species, but tend to favor conifers. From personal foraging experience, I have historically found many <i>Boletus edulis</i> growing around <i>Quercus agrifolia</i>, so I hypothesized these trees would host a higher density. The data from my experiment support my hypothesis because 71% of <i>Boletus edulis</i> were found growing around <i>Quercus agrifolia</i> trees, as opposed to 28% growing near <i>Pinus radiata</i>. This experiment could benefit from a longitudinal study, including more data and foraging sites.</p>	
Summary Statement Boletus eludes appears to have had host tree affiliation density in the habitats I researched that differ from the published literature.	
Help Received My father drove me to different locations for data collection. My mother helped with organizing my board.	