The Antimicrobial Potential of Conifer Chemical Extracts

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Purpose: To find a conifer that inhibits bacteria growth. Hypothesis: I think there is a conifer that inhibits growth well. Procedures: KIRBY BAUER: 1) Selected 10 products known for having antiseptic properties. 2) Sectioned nutrient agar plates into equal parts and numbered the plates 1-15. 3) Applied bacteria on the plates. 4) Sterilized forceps. 5) Placed sterilized disk in a treatment. 6) Applied saturated disk onto the corresponding number on the plates. 7) After repeating this process with 14 other products, I incubated the plates for 24 hours at 37 c. 8) Removed plates from the incubator, ranked products by inhibition zone size. COLONIZATION: I used different dilution rates of bacteria to water to test my products on. I used full, half, fourth, and eighth. The total amount was 10 ml. 1) Put 1 ml of each product in its tube. 2) put a piece of polyfilm on each test tube. 3) Incubated it for 24 hours at 37 degrees Celsius. 4) Swabbed each tube and put it on each corresponding section of an agar plate. 5) Incubated them for 24 hours at 37 degrees Celsius. 6) Counted colonies, and recorded my results. PAPER CHROMOTOGRAPHY: 1) Dropped drops of my product on my paper. 2) Let them dry. 3) Put the paper on bacteria covered agar plates. 4) Incubated them at 37 degrees Celsius for 24 hours. 5) Measured any bacteria inhibition. Results: The conifers aren’t consistent enough to overtake chemicals at inhibiting the growth of bacteria the best.

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