OBTAINING PRODUCTS WITH ANTIBIOTIC CAPACITY FROM SEAWEED

UAB

Final Degree Project - June 2024

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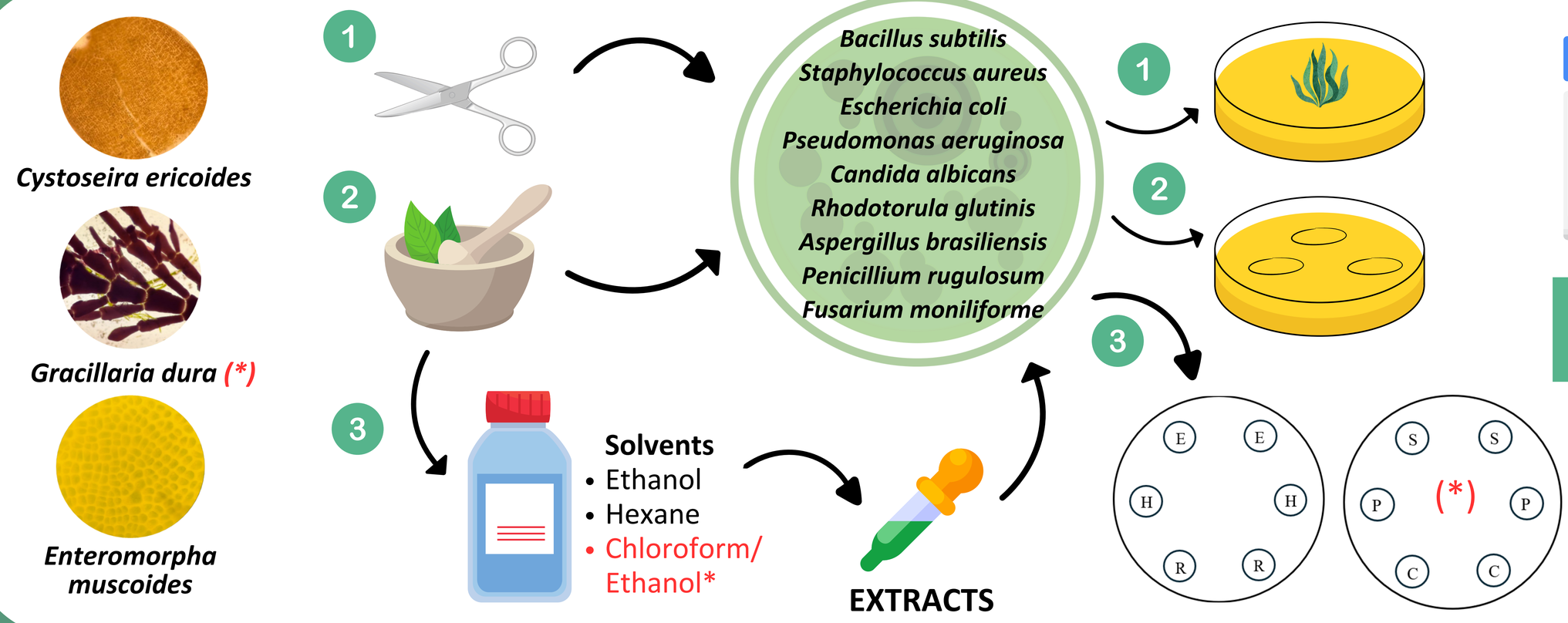
OBJETIVE

- **To demonstrate the presence of biologically active components against pathogenic microorganisms, in species of algae that are easy to collect on beaches of the Mediterranean Sea.**

MATERIAL AND METHODS



RESULTS AND DISCUSSIONS

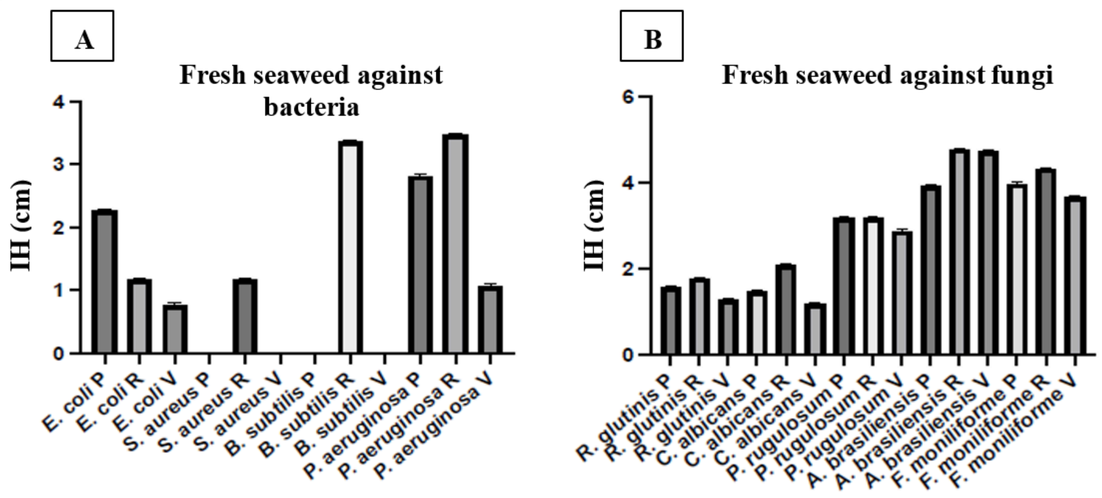


Figure 1: Inhibition halos (IH) produced by the fresh macroalgae species *Cystoseira ericoides* (**P.**), *Gracillaria dura* (**R.**) and *Enteromorpha muscoides* (**V.**), expressed in cm, against bacteria (**A**) and against fungi (**B**).

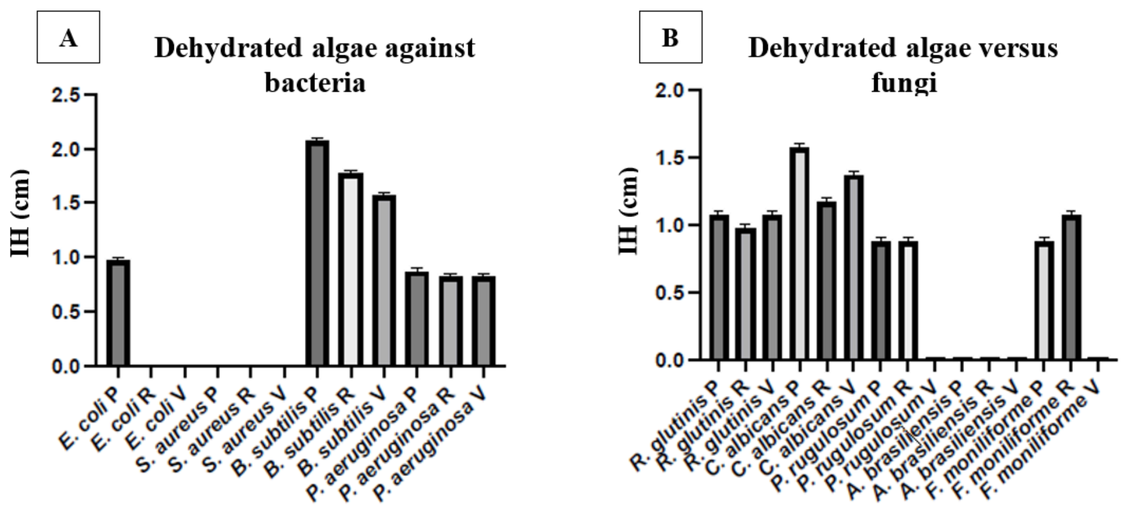


Figure 2: Inhibition halos (IH) produced by the dehydrated marine macroalgae species *Cystoseira ericoides* (**P.**), *Gracillaria dura* (**R.**) and *Enteromorpha muscoides* (**V.**), expressed in cm, against bacteria (**A**) and against to fungi (**B**).

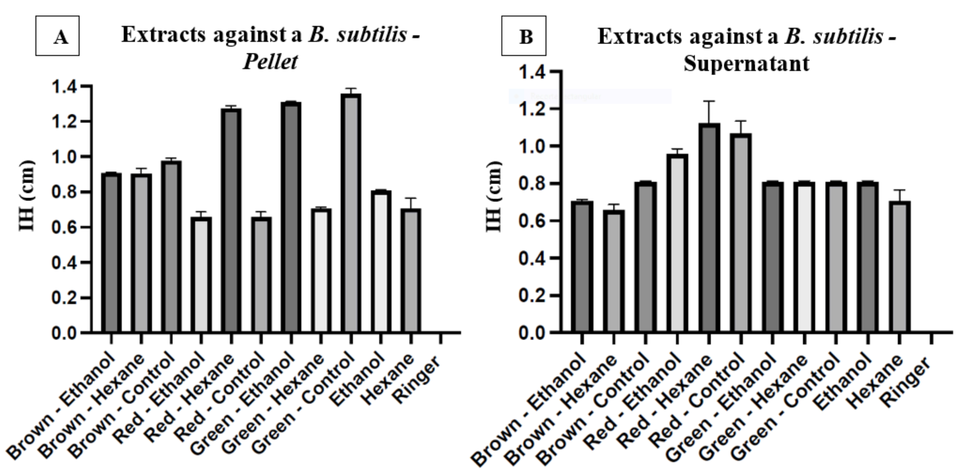


Figure 3: Observed inhibition halos (IH), expressed in cm, generated by the extracts made from the macroalgae *Cystoseira ericoides* (**brown**), *Gracillaria dura* (**red**) and *Enteromorpha muscoides* (**green**) from the resuspended pellet (**A**) or of the supernatant (**B**).

CONCLUSIONS

- **The macroalgal species analyzed, from our coast of the Mediterranean Sea, present biologically active components against pathogenic microorganisms.**
- **The *Gracillaria dura* species showed a greater trend in the area of antibacterial activity against *B. subtilis*.**

REFERENCES

- Muñoz, R. A., Santome, S., & León, J. Q. (2020). Antibacterial activity of hexane and ethanolic extracts of marine macroalgae of the Bay of Ancón, Lima – Peru. Revista de Investigaciones Veterinarias Del Peru, 31(2).
- Lomartire, S., & Gonçalves, A. M. M. (2023). An Overview on Antimicrobial Potential of Edible Terrestrial Plants and Marine Macroalgae Rhodophyta and Chlorophyta Extracts. In Marine Drugs (Vol. 21, Issue 3). Multidisciplinary Digital Publishing Institute (MDPI).