Universitat Autònoma de Barcelona

PLASTIC BIOREMEDIATION

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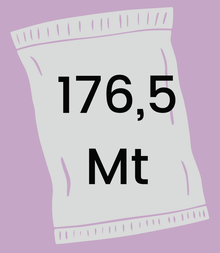
INTRODUCTION

2000



x2

2019

2022

30 Mt plastic - seas
109 Mt plastic - rivers

OBJECTIVES

Summarize scientific research on plastic bioremediation from 2014 to 2022 using bacteria and/or fungi.

RESEARCH

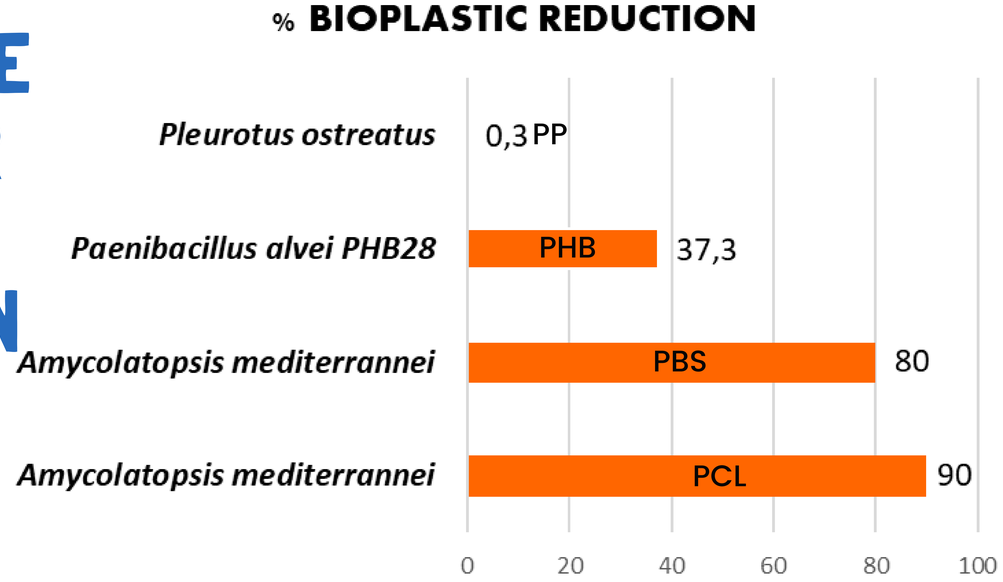
BIOREMEDIATION

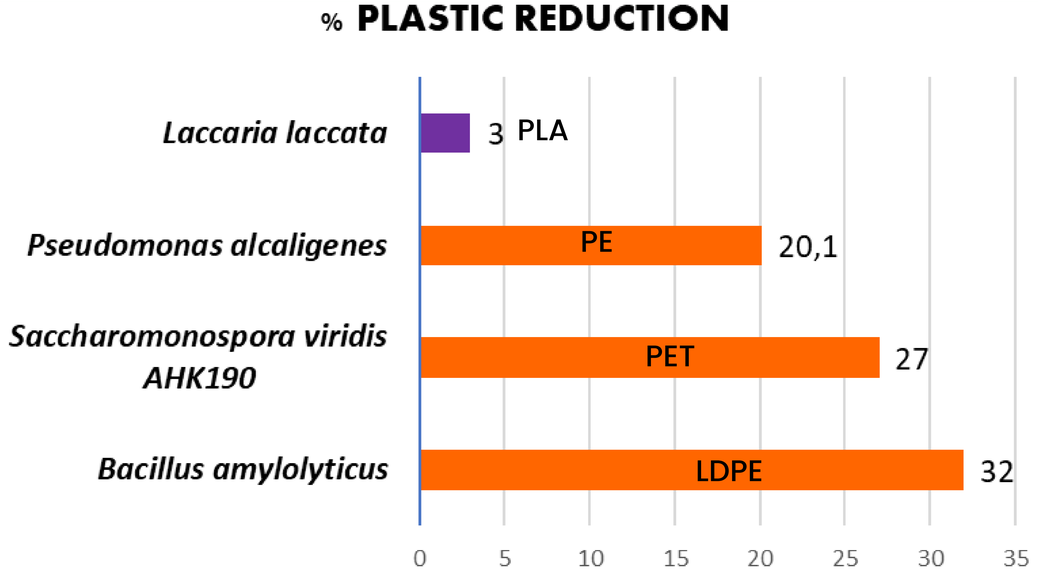
$CO_2 + H_2O$ + inorganic compounds + cellular proteins

MOST EFFECTIVE ORGANISMS FOR PLASTIC BIOREMEDIATION

Bacteria

Fungus





CONCLUSION

In the review of the 12 articles, it can be affirmed that:

1. Bioplastics have a higher degradability than synthetic plastics
2. Synthetic plastics have a longer incubation and lower percentages of reduction than bioplastics
3. Bacteria are more effective than fungus in plastic bioremediation