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## ANTIMICROBIAL ACTIVITY SCREENING OF PLAGIOMNIUM ELATUM

KEREM CANLI<sup>1</sup>, ALI YETGİN<sup>2</sup>, ILGAZ AKATA<sup>3</sup>, ERGİN MURAT ALTUNER<sup>4</sup>

### ABSTRACT

In the East Asia, bryophytes are mostly used as economical purpose and their cultivation is applied in moss gardening. Although bryophytes antimicrobial potential is known, most of them are not determined. Bryophyte contain active substances which are significant for healing of pathogen infection. The antimicrobial activity of Plagiomnium elatum was investigated against 17 bacterial and 1 fungal species with disk diffusion method. These microbial strains include Bacillus, Enterobacter, Enterococcus, Escherichia, Klebsiella, Listeria, Pseudomonas, Salmonella, Staphylococcus and Candida geniuses. Standard species is crucial for antimicrobial screening, therefore twelve of the tested microorganisms are selected form standard species. 0.34, 0.68 and 1.13 mg samples were acquired with ethanol extraction method. Our present study has shown that the ethanol extract of P. elatum has antimicrobial activity against nine of the studied strains. This analysis is the first report for the antimicrobial potential of P. elatum.

### KEYWORDS

*Plagiomnium elatum, bryophyte, antimicrobial activity, disk diffusion method, ethanol extract*

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