

## Antimicrobial Activity of Few Selected Bryophytes of Rajasthan

Anshul Bishnoi<sup>1\*</sup>, Sachin Poonia<sup>2</sup> and Afroz Alam<sup>1</sup>

<sup>1</sup>Department of Bioscience and Biotechnology, Banasthali University, Rajasthan, India

**Abstract:** The aim of present research was to determine the antimicrobial activities on seven species (in three genera) of Bryophytes (of Pottiaceae Family) against fungi and bacteria. The ethanolic extracts of sample plants were consecutively dissolved in five solvents (acetone, chloroform, distilled water, ethanol and methanol) of concentration  $\geq 5$ . Then subsequently, 1% - 5% concentrations of these extracts were prepared. Sterile Whatman paper discs were impregnated with these plant extract concentrations and were then applied against selected microbial cultures (four bacterial and five fungal strains). Synthetic antibiotic and antifungal drugs were used as positive control, which were observed to be slightly less resistant against some microbes in comparison to few plant extracts. All sample plants were found to be fairly active against microbes; *Hyophila rosea* and *Hyophila comosa* were the most active ones. Ethanol and methanol solvent extracts were highly responsive against bacterial and fungal strains.

**Keywords:** Antimicrobial activity, extracts, mosses, Pottiaceae