

## ABSTRACT

The goal of the present study was to assess the ethnopharmacological potential of both organic and inorganic crude extracts of various plant components from *Bothriochloa pertusa* (L.) A. Camus and *Poa annua* L., two regionally prevalent types of grass. The ethnopharmacological evaluations of phytochemistry included analyses of phytochemical characteristics, percentages yield, and antioxidant, antibacterial, anti fungal, and anthelmintic properties. *P. annua* stem extract in dist. H<sub>2</sub>O had the highest yield (5.91%), whereas *B. pertusa* root extract in n-Hexane had the lowest yield (0.97%). The physical characteristics noted were appearance, feel, and smell of crude extracts. Steroids, phenols, tannins, alkaloids, terpenoids, cardiac glucosides, and reducing sugars were discovered to be significant secondary metabolites that make up the various extracts. Antioxidant activity was investigated using a variety of assays; the highest value of Total Flavonoid Content (180.4) was found in a Dist. H<sub>2</sub>O extract of *P. annua* leaf, while the maximum value of Total Phenolic Content was found in an n-hexane extract of *P. annua* root. N-hexane extract of *B. pertusa* inflorescence had the highest percentage of metal chelating, which was 80.55; ethanol extract of *B. pertusa* inflorescence had the maximum Total antioxidant activity, which was 155.83. The greatest value of FRAP was 251.47 in the chloroform extract of the *B. pertusa* leaf, while the highest value of DPPH was 95.53% in the ethanol extract of the *B. pertusa* stem. *Escherichia coli* and *Bacillus subtilis*, as well as the fungi *Penicillium commune* and *Candida albicans*, have all been subjected to antimicrobial activity. Maximum antifungal activity against *Candida albicans* was measured at 19 mm in *P. annua* ethanol stem and 18 mm in *B. pertusa* ethanol root against *Bacillus subtilis*, respectively. The best results were seen when using an n-hexane extract as an anthelmintic against *Haemonchus contortus*. The outcomes produced in this way confirm the grasses' potential for ethnopharmacological use.