PATNA WOMEN'S COLLEGE 1940

IRIS
Journal for Young Scientists
ISSN 2278 – 618X **(Print)**
ISSN 2278 – 6384 **(Online)**

http://www.patnawomenscollege.in/journal

Analysis of phytoconstituents present in the leaf extract of *Trianthema portulacastrum* and its antimicrobial assay

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Received : November 2016
Accepted : March 2017
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Abstract : *The present study dealt with the phytochemical screening, estimation, antioxidant activity and antimicrobial potential of the leaf extract prepared in distilled water and methanol of Trianthema portulacastrum. The aqueous extract showed the presence of Flavonoid, Tannin, Protein, Terpenoid,Carbohydrate and methanolic extract showed the presence of Phenol, Tannin, Protein, Carbohydrate, Alkaloid. Among all the phytoconstituents detected, Protein was 840g/m, and Carbohydrate was 80µg/ml. Functional group were detected by using FT-IR.The antioxidant property was evaluated using hydrogen peroxide scavenging assay and the percentage inhibition was calculated as 5.031 in aqueous and 9.129 in methanol. The antibacterial assay of methanolic leaf extract showed partial effectiveness against the pathogenic bacterial strain Escherichia coli and both the leaf extracts were found to be ineffective against the fungal strain Aspergillus niger.*

Keywords: *Phenol, Tannin, Protein, Carbohydrate, Escherichia coli, Aspergillus niger.*

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Introduction:

Trianthema portulacastrum, also known as Bishkhapra, Horse purslane, Gadabani and Lalsabuni is one of the most common weed of family Aizoaceae (Singh et al, 1982) .Two forms are reported to occur in this species, a red –colored form known as Lalsabuni and a green colored form known as Svetsabuni which has green stem and white flowers. It grows abundantly in Bihar, Uttar Pradesh and West Bengal. This is not cultivated commercially but is found as a tropical problematic terrestrial weed by virtue of its infestation in plains, river beds and in waste lands. Flowers bloom in the month of February to October. The plant is used as a herb which is found on the ground in a circle and