
2. **S K Panda et al** in the year **2011** reported **antibacterial activity** of hexane, butanol, methanol and water extracts of *pterospermum acerifolium* (L.) Willd. Bark against *S. aureus*, *B. licheniformis*, *B. subtilis*, *E. coli*, *P. florescence*, *P. aeruginosa*, and *S. typhimurium*. He had reported maximum activity was observed in butanol extract against *S. aureus*. MIC values for most of the extracts ranged from 0.312 to 5.0 mg/ml. ²

3. **Ashis Kumar Manna et al** in the year **2009** reported the antiulcer activity of ethanol extract of *Pterospermum acerifolium* bark extract against aspirin, indomethacin and ethanol induced ulcers. He had reported significant inhibition of gastric secretary volume, and total acidity in pylorus ligated rats.³

4. **Subhendu S. Mishra et al** in the year **2011** reported the antioxidant activity of methanolic extract of *pterospermum acerifolium* (L.).⁴

5. **Pritosh Pattanaik et al** in the year **2010** reported the antimicrobial and anthelmintic activity of barks of *Pterospermum Acerifolium*.⁵

6. **Pritosh pattanaik et al** in the year **2010** reported the antioxidant and anti-Inflammatory Screening of Barks of *Pterospermum acerifolium* (*Sterculiaceae*).⁶

7. **Santanu Sannigrahi et al** in the year **2010** reported the antioxidant and anti-inflammatory potential of petroleum ether and methanolic extract of dried powder of leaves of *pterospermum acerifolium*. Antioxidant activity of different fractions were evaluated by using in-vitro antioxidant assays models like determination of total phenolics, DPPH radical scavenging assay, nitric oxide scavenging assay, hydroxy radical scavenging assay and superoxide anion scavenging assay. Anti-inflammatory activity was evaluated using carrageenan induced inflammation and thermally induced protein denaturation. Ethyl acetate fraction of *P. acerifolium* (EAF) showed highest free radical scavenging activity in all the models. EAF also produced
significant anti-inflammatory activity in both in-vivo and in-vitro model. The results obtained in this study showed that the leaves of *Pterospermum acerifolium* L. have antioxidant and anti-inflammatory properties which provide a basis for the traditional use of the plant.7

8. **Sambit Parida et al** in the year 2010 reported the Anthelmintic potential of crude extracts and its various fractions of different parts like leaves bark and flowers of *Pterospermum acerifolium* Linn. They had investigated anthelmintic activity against earthworms (*Pheretima posthuma*), roundworms (*Ascardia galli*) and tapeworms (*Raillietina spiralis*) using Albendazole and Piperazine citrate as reference standards. The results of anthelmintic activity revealed that the ethyl acetate fraction of all the parts were most potent which were well comparable with both standard drugs followed by n-butanol fractions of those parts, but at higher doses. All other fractions, petroleum extracts and remaining crude extract after fractionations of those three parts of the plant were endowed with minute anthelmintic property, which were not up to standards.8

9. **Shweta Saboo, et al** in the year 2010 reported the antioxidant activity and total phenolic, flavonoid contents of the crude extracts of *Pterospermum acerifolium* wild leaves (Sterculiaceae).9

10. **Kumar M.A. et al** in the year 2009 reported the anti-inflammatory and analgesic activity of ethanolic extract of *Pterospermum acerifolium* bark.10

11. **Papiya Mitra Mazumder, et al** in the year 2008 reported anti-inflammatory and antinociceptive activities of the shade dried flowers of *Pterospermum acerifolium* at the doses (p.o.) of 200 and 400 mg/kg body weight.
Table 3.1: Phytochemical review of *Pterospermum acerifolium* Willd.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Part used</th>
<th>Extract</th>
<th>Chemical constituents isolated</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trunk bark</td>
<td>-</td>
<td>Amino acids-cystine, glycine, alanine, tyrosine, leucin</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Bark</td>
<td>-</td>
<td>D-galactouronic acid, D-galactose, L-rhamnose, Kaempferol, Luteolin, Luteolin-7-O-glucoside, Luteolin-7-O-β-D-glucuronide</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Seeds</td>
<td>alcoholic extract</td>
<td>Sugars-lactose, xylose, rhamnose, Amino acids-cystine, glycine, alanine, tyrosine</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Flowers</td>
<td>Light petroleum ether extract</td>
<td>24β-ethylcholest-5-en-3β-O-α-cellobioside, 3,7 diethyl-7-methyl1:5 pentacosanolide, n-hexacosane-1-26-diol dilignocerate, β-amyrin, β-sitosterol, n-tricontanol, n-hexacosane 1,26 diols, Hydrocarbons-Myristic acid, Palmitic acid, Stearic acid, Arachidic acid,</td>
<td>14</td>
</tr>
</tbody>
</table>
Lignoceric acid,  
Oleic acid,  
Linoleic acid,  
Linolenic acid

<table>
<thead>
<tr>
<th></th>
<th>Flowers</th>
<th>Alcoholic extract</th>
<th>Kaempferol, Kaempferol-7-O-β-D-glucopyranoside</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Leaves</th>
<th></th>
<th>Bauerenol, Betulin, Friedelin, Kaempferol-3-β-D-galactoside, B-sitosterol, luteolin</th>
</tr>
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<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>18</td>
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</table>
Table 3.2: Pharmacological review of *Pterospermum acerifolium* Willd.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Part used</th>
<th>Pharmacological activity</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>leaves</td>
<td>Antimitotic and anticancer activity</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>Bark</td>
<td>Antidiabetic activity</td>
<td>19</td>
</tr>
</tbody>
</table>
References:


Pharmacognostic, phytochemical and pharmacological investigation on *Pterospermum acerifolium* WILLD. (*Sterculiaceae*)
12. Gupta P, Bishnoi, Structure of new acid polysaccharide from the bark of