

Evaluation and Comparative Studies Directed towards the Bioactivity of Iris Species Phytochemical Screening of Different Extracts of Iris Species Growing in Kashmir for Prospective Resourcing as Natural Products

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Abstract—Genus *Iris* spp. belonging to family Iridaceae represents one such genera which has a worldwide distribution, in India is represented by 34 species and 5 varieties under 14 genera of Iridaceae⁹⁶. Kashmir is represented by 12 species⁹⁷. Out of these species, two less explored species have been selected for the studies

The present study reports the antibacterial activity of different extracts of five different *Iris* plant species growing in Kashmir Himalayas. Water, methanol and hexane extracts of the rhizome of *Iris croceae*, *Iris ensata*, *Iris germanica*, *Iris hookeriana* and *Iris kashmiriana* were prepared and screened for phytochemical studies and antibacterial activities against five bacterial strains including both Gram positive and Gram negative. The different extracts of these species showed broad spectrum antibacterial activity with methanol extract showing highest zone of inhibition followed by hexane and aqueous extracts. The phytochemical analysis of the different extracts of these five species revealed the presence of flavonoids, isoflavonoids, glycosides and tannins, while as Alkaloids were absent in these plant species

Iris species have an immense medicinal importance. *Iris* species are used in treatment of biliousness with liver dysfunction, cancer; inflammations in addition to bacterial and viral infections. They are used as antispasmodic, emetic, laxative¹, antidote and haemostatic agents

Keywords: *Iris* species, iridaceae, antibacterial activity, phytochemical screening.
