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**Phytochemical Characterization and Ethnomedicinal Importance of
Oroxylum Indicum and Gloriosa Superba from Bastar, Chhattisgarh**

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ABSTRACT

The Bastar plateau of Chhattisgarh is a recognised ethnobotanical hotspot, where Gond, Muria, Maria, Halba, Bhatra and Dhurwa communities still depend on forest plants for primary healthcare. The present doctoral investigation documents the ethnomedicinal importance of two culturally and pharmacologically significant species—*Oroxylum indicum* (L.) Kurz (Bignoniaceae; Shyonaka/Sonapatha) and *Gloriosa superba* L. (Colchicaceae; Kalihari/Jhagrinphul)—and correlates traditional claims with phytochemical profiles of locally collected material.

Field surveys and structured interviews with traditional healers recorded part-specific uses, methods of preparation and perceived efficacy. *O. indicum* bark, root and seeds are employed against diarrhoea, dysentery, jaundice, cough, rheumatism, wounds and as a constituent of Dashamoola-type decoctions. *G. superba* tubers and leaves are used, with great caution, for gout, joint pain, skin eruptions, snakebite, delayed labour and as an abortifacient; healers also recognise its high toxicity. Both species are under collection pressure and *G. superba* is of conservation concern.

Shade-dried plant parts were extracted in polar and non-polar solvents and screened for major secondary-metabolite classes. Quantitative assays (TPC, TFC) and chromatographic characterisation (HPTLC/HPLC/GC–MS) confirmed that *O. indicum* is rich in flavones—baicalein, chrysin, oroxylin A, baicalin and oroxin A/B—together with phenolic acids and sterols, consistent with reported antioxidant, anti-inflammatory, antimicrobial and gastroprotective activities. *G. superba* tubers and seeds yielded colchicine and related tropolone alkaloids (gloriosine, colchicoside, demethylcolchicines) plus phenolics and sterols, explaining traditional anti-inflammatory and antimitotic uses while underscoring the narrow therapeutic window.

The study links Bastar folk knowledge with chemically defined marker compounds, supports selected traditional indications, and highlights the need for sustainable harvest, cultivation and standardisation before these taxa can be safely advanced as sources of phytopharmaceutical leads.

Keywords: *Oroxylum Indicum*; *Gloriosa Superba*; Ethnomedicine.