

# Diversity of Genus *Trametes* from District Haridwar (Uttarakhand) and Pharmacognostic and Phytochemical Evaluation of *Trametes Cingulata*

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**Abstract** Genus *Trametes* Fr. (Family *Polyporaceae*, Order *Polyporales*, Phylum *Basidiomycota*) is characterized by sessile, pileate, dimidiate to fan shaped, single/imbricate basidiocarps; hispid to glabrous, often zonate abhymenial surface; whitish to cream to pale grey hymenial surface; trimitic hyphal system; clamped generative hyphae; tortuous, solid binding hyphae; straight, thick-walled to solid skeletal hyphae; absence of cystidia and ellipsoid to allantoid, smooth, thin-walled, inamyloid basidiospores. It is receiving special attention worldwide due to immunomodulatory, anti-cancer, anti-tumor, hepatoprotective and lipid lowering properties. This paper provides macroscopic and microscopic details about five species of genus *Trametes* (*T. cingulata*, *T. menziesii*, *T. leonina*, *T. pubescens* and *T. marianna*) based on the collections made from various localities of district Haridwar (Uttarakhand). Of these, *T. leonina* is being reported for the first time from the state of Uttarakhand, whereas the remaining four species are first reports from district Haridwar. Pharmacognostic parameters of *Trametes cingulata* (tapped density, bulk density, Hausner ratio, Carrs Index, oil absorption capacity, water absorption capacity, dispersibility, loss on drying, foreign matter, total ash value, acid insoluble ash, water soluble ash, alcohol soluble extractive, water soluble extractive, emulsion capacity and emulsion stability) have been determined using standard methodology. The phytochemical screening of the aqueous extract of the same has revealed it to be a source of carbohydrates, phenols and tannins, which will further be studied and utilized for drug development and industrial biotechnology.