



## Assessment of Pharmacognosy and Preliminary Physicochemical Investigations of Ethanolic Extract of Plant *Linnæa latifolia* (L.) Benth. of Valmiki Tiger Reserve, West-Champaran District, Bihar

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### ABSTRACT

*Linnæa latifolia* (L.) Benth. is synonymously known as *Phytolacca latifolia* L. and *Linnæa spica* L. . *Linnæa latifolia* present itself in small trees in the family Flacourac. According to existing any report was not available on macroscopic, microscopic, and physicochemical investigations of *Linnæa latifolia* (L.) Benth. The present study was aimed to evaluate macroscopic, microscopic characters, and physicochemical investigations of *Linnæa latifolia* (L.) Benth. All parameters were established according to the Pharmacognosy standard procedure. Linnæoside found to be present in leaf, fruit, and seed. The stem cross-section of the leaf displayed a single layer of the epidermis, glandular, and non-glandular trichomes. Primary microscopy of the leaf and stem showed the presence of calcium oxalate crystals, trichomes, and starch grains. Physicochemical studies like pH value, extractive values, and UV of Linnæoside have been also been established. The present studies have established parameters for the correct identification of *Linnæa latifolia*. The present investigation was carried out to evaluate macroscopic and preliminary physicochemical investigations of plant, *Linnæoside* (L.) Benth., which will assist in standardization for authenticity, quality, and identification of herbal products.

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### INTRODUCTION

Plants are being used for many ethnomedicinal and non-ethnomedicinal purposes of humans since ancient times [Atri et al., 2019]. India is recognized the world over as a rich source of aromatic and medicinal plants [Datta and Dasgupta, 2014]. The authors explored *Linnæa latifolia* (L.) Benth. diversity as well as to relate diversity [Roy et al., 2011]. Flacourac (the grape family) has comprised 11 genera and 9000 species distributed across the world, basically in the tropical and subtropical regions of Asia- China, India, Nepal, Western Thailand, Bangladesh, Cambodia, Myanmar, Laos,