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Science and Technology”**  
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**STUDY ON MORPHOLOGICAL, ANATOMICAL, PHARMACOGONOSTICAL AND PHYTOCHEMICAL VARIATION BETWEEN THE TWO IMPORTANT MEDICINAL PLANTS *RUELLIA PATULA* JACQ. AND *RUELLIA TUBEROSA* LINN.**

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**Abstract:**

The present study was carried out to identify the variation between the two important species viz., *Ruellia patula* Jacq. and *Ruellia tuberosa* Linn. belongs to family Acanthaceae. The plants are highly medicinal and used as one of the component in making of many indigenous medicines including Ayurvedha and siddha. The properties of the medicinal plants were determined by means of various parameters including morphological, anatomical, pharmacognostical and phytochemical analysis. The similar studies were also conducted for these two plants to find out the variation between these two species. Anatomically the plants exhibited the variation in number of cortical layers and in vascular elements too. In the pharmacognostical studies also the two species showed a distinctive variation among them. The colour variation under visible and UV light of the plant stem powder was varied among the species due to presence of many additional components. The preliminary phytochemical evaluation exhibited the presence of all important phytochemicals. The amount of presence is varied among the species to a considerable extent. Hence, the study clearly depicts important characteristic features of the individual plant species to avoid adulteration in the field of Pharmacognosy.

**Keywords:** Pharmacognosy, Phytochemicals, Anatomy, Medicinal plants