

**Morphological and cytological studies of  
some Nigerian species of Tephrosia  
Pers.**

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## **Abstract:**

The genus Tephrosia Pers. is represented by over 400 species out of which about fifteen are found in Nigeria, out of which seven were considered in this study viz: T. bracteolata Guil'd Perr., T. flexuosa G. Don., T. simplicifolia Frarch, T. barbigeria Welw. ex. Bak., T. linearis (Willd.) Pers., T. elegans Schum. and T. pedicellata Bak. Of these, T. bracteolata is widespread in Nigeria.

The genus Tephrosia shows considerable morphological variability. Measurements of the Morphological traits (vegetative and floral) are more or less characteristic for each species, but there is obvious overlap of the measurements in some cases: this underscores the close genetic identity of the species. The close genetic identity can also be seen in the close pollen size and shape.

Some aspects of inter-specific and intra-specific variability of the observed attributes can be explained by invoking response of the populations to ecological conditions.

From mitotic studies, the most prevalent diploid number of chromosomes of 22 was observed for T. bracteolata, T. flexuosa, T. elegans, T. barbigeria and T. purpurea while the less frequent diploid chromosome numbers of 20 and 16 were found in T. pedicellata and T. simplicifolia respectively.

Meiosis is normal in T. bracteolata as seen in the regular bivalent associations and in the normal alignment of the chromosomes on the metaphase plate.

**Keywords:** Morphology/ cytology/ chromosomes/ population/ meiosis

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