**Title**: Taxonomic revision of *Schizachyrium*, *Heteropogon,* and *Diectomis* [Poaceae: Panicoideae: Andropogoneae] from India.

**Introduction**:

*Schizachyrium* Nees, *Heteropogon* Pers. and *Diectomis* Kunth, are the genera of the sub-tribe Andropogoninae, tribe Andropogoneae and subfamily Panicoideae under the family Poaceae represented by 64 and 6 species respectively (Soreng et al. 2017). In India, both of the genera (except *Diectomis*; a Monotypic genus) are widely distributed and represented by 6 species each, since taxonomical complexity remained persistent, no comprehensive revisionary work has been undertaken in India [Except: Deshpande, U. R. 1990]. Some species in the genera are less known and only represented by the Type in herbaria viz. *S. imressum* (Hack.) A. Camus,at Kew. Some widely distributed commonest species viz. *H. contortus* (L.) P.Beauv. ex Roem. & Schult. & *S. brevifolium* (Sw.) Buse acquire tremendous variation owing to varying ecology and geography in the range of their distribution. Some species are rather obscure and less known in *Schizachyrium* in North-East India and Western Himalayas.

The genus *Schizachyrium* Nees shares similarities with *Heteropogon* Pers., *Sehima* Forssk., *Cymbopogon* Spreng., *Diectomis* Kunth, *Parahyparrhenia* A. Camus*, Hyparrhenia* Andersson ex E. Fourn.*, Hyperthelia* Clayton*, Bothriochloa* Kuntze*, Dichanthium* Willemet*, Capillipedium* Stapf and *Andropogon*  causing difficulties in generic demarcation from allied genera in native habitats. It can be seen that the relationship between the two several genera are not clear which anticipates further taxonomic review by in large (Elizabeth, M. S. et al. 2007). It has been seen on many occasions, where neighboring genera with poor circumscriptions make new combinations and do not retain the status consistently. In order to critically understand the amount of variations and consistency of their retention, a comprehensive undertaking of a sub-tribe Andropogoninae is very requisite.

**Materials and method**:

Extensive field work across India in all the possible localities will be done. Major herbaria across Indian subcontinents will be consulted for critical study. Distribution map will be plotted based on herbarium study. In case of identity and nomenclatural problem(s) Type locality (-ies) (for native Indian species) will be visited for collection. Plant materials collected during the field visits will be processed and deposited in BLATTER HERBARIUM (BLAT). During the field visits living collection will be collected and maintained in the garden of St. Xavier’s College (Autonomous) Mumbai, for growth and character monitoring. The grant body will be undoubtedly acknowledged for curious findings during the field work in other genera and aspects of taxonomy. Advance SEM technique will be employed to document critical caryopses/floral ornamentation/Indumentation to use as good taxonomic characters in species demarcation.

**Objectives**:

The proposal for the revisionary studies of three genera aims at resolving taxonomic, nomenclatural and identification concerned problems in India and to give vision of proper distribution pattern of the taxa involved with respect to endemic and non-endemics status. We deem, for nomenclatural stability, Typification wherever required, will be done. This revisionary work should give a comprehensive taxonomic insight into three considered genera in India and will stabilize the names respectively. We aim at providing illustrations, distribution maps, and photographs of all the taxa involved in the study from India.

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