Germplasm Collections and Morphological Studies of Andropogongayanus-Andropogon tectorum Complex in Southwestern Nigeria

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Abstract : Morphological studies were carried out on Andropogongayanus-Andropogontectorum complex collected in Southwestern Nigeria to provide full characterization of the two species of Andropogon; elucidating their population dynamics. Morphological data from selected accessions of A. gayanus and A. tectorum from different parts of Southwestern Nigeria were collected and characterized using an adaptation of the Descriptors for Wild and Cultivated Rice (Oryza spp). Preliminary morphological descriptions were carried out at the points of collection. Garden populations were raised from the vegetative parts of some accessions, and hybrids were maintained in Botanical Garden of the Obafemi Awolowo University, Ile- Ife. The data obtained were subjected to inferential tests and Duncan's multiple range test. This study has revealed distribution pattern of the two species in the area of study, which suggests a south-ward migration of Andropogongayanus from the northern vegetational zones of Nigeria to the southern ecological zones. The migration of A. gayanus around Igbeti with occasional occurrence of A. tectorum along the roadsides without any distinct phenotypic hybrid and Budo-Ode in Oyo State has been established as the southern limit of the spread of A. gayanus, the migration of A. gayanus to the South is not an invasion but a slow process. A. gayanus was not encountered in Osun, Ondo, Ekiti, and Ogun States. Andropogongayanus and Andropogon tectorum not only emerge from the rootstocks rapidly but can also produce independent propagules by rooting at some nodes. The plants can spread by means of these propagules even if it does not produce sexual or apomictic seeds. This potential for vegetative propagation, in addition to the perennial habit, confer considerable advantage for colonization by the Andropogongayanus-AndropogontectorumComplex.

Keywords : accessions, distribution, migration, propagation

Conference Title : ICBPS 2022 : International Conference on Botany and Plant Science

Conference Location : London, United Kingdom

Conference Dates : June 27-28, 2022