

a degree of inter-culture variability is present for all the attributes studied. This is not surprising when one considers that radiation treatment will randomly affect a number of loci and thus produce genetic heterogeneity in the off-spring. Another point of interest is that the data on selected promising progenies clearly indicate that in the matter of yield the mutants are atleast at par with, or even superior to, the parental variety.

Mutagenically induced amber grain mutants have been reported previously.^{1,2} The realisation in mutation experiment of a desired grain colour rectification of Torari 71 underlines the value of mutation breeding as a tool when applied to well planned experiments with limited objectives.

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CYTOGENETICS OF COMMELINACEAE:

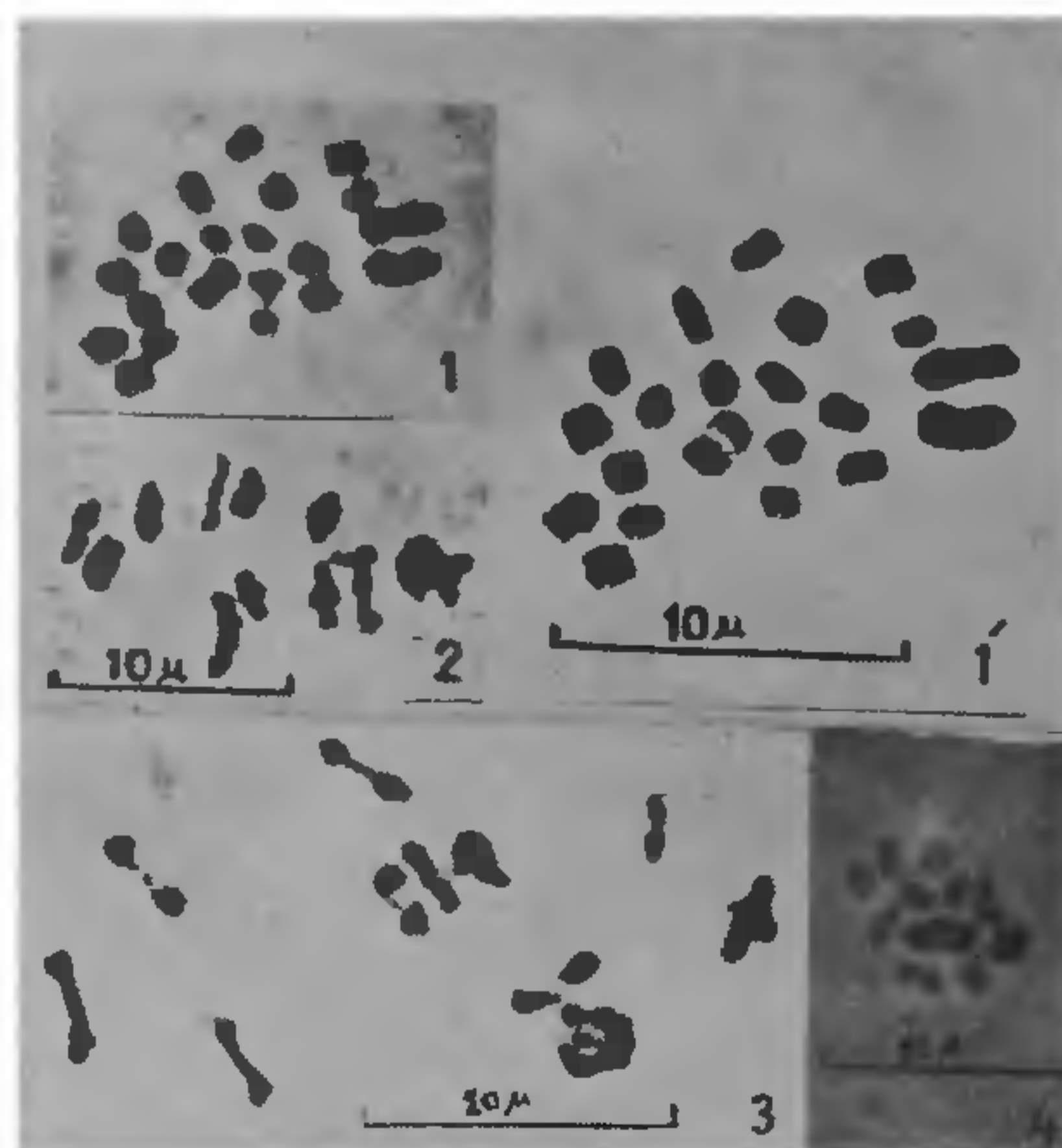
VI. A New Basic Chromosome Number for the Genus *Floscopa*

DIFFERING chromosome numbers have been reported by earlier workers for *Floscopa scandens* Lour. as n or $x = 9^1$, 12^{2-4} and 15^5 . We are reporting here the number of $2n = 22$ and $n = 11$, which is new for this species and also for the genus. In a population of plants, two types differing only by poor and vigorous vegetative growth occurred in Taukucha-Rangtia forest and also in Sylhet of Bangladesh. The plants were brought to Dacca and grown at the Dacca University Botanical Garden. Cytological observations were made for three successive years from the same population.

In studying the chromosomes of root tip cells, haematoxylin squash method⁶ preceded by pretreatment in saturated paradichlorobenzene for three hours was used. Acetocarmine squash method⁷ was used to study meiosis in the pollen mother cells.

The root tip cells from both types showed 22 chromosomes (Figs. 1 and 1'). The chromosomes were heteromorphic with one pair being much larger than the rest. The pollen mother cells of both types contained 11 bivalents (Figs. 2, 3 and 4). The mean chiasma frequency per bivalent estimated from 36 well-spread pollen mother cells, along with standard

error ($\bar{x} \pm S.E.$), was 1.95 ± 0.03 . Regular occurrence of 22 chromosomes in root tip cells as well as 11 bivalents in pollen mother cells indicated that the basic number was 11. This record seems to support Brückner's⁸ classification of this genus under the tribe *Commelineae* and Brenan's⁹ categorization under his "group I" where several members possess $x = 11$ chromosomes.



FIGS. 1-4. Fig. 1. Somatic chromosomes in a root tip cell; Fig. 1', Camera lucida drawing of Fig. 1. Figs. 2, 3 and 4. 11 bivalents in pollen mother cells.

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