INTRODUCTION

The genus *Ixora* of the family Rubiaceae is considered to be a very successful genus and is characterised by its wide distribution in South East Asia. Several of its species are cultivated in India specially in the plains for their ornamental flowers. It is, however, significant that in spite of the regular flowering, seed setting is not profuse and horticulturists prefer their propagation through cuttings.

Chromosome counts so far made in different species of this genus show a regular diploid number of twentytwo chromosomes (FAGERLIND, 1937; RAGHAVAN and RANGASWAMY, 1941). This remarkable constancy in chromosome number throughout the genus, no doubt signifies the homogeneity of this taxonomic unit. No data on the detailed karyotype of any species is available. In view of the homogeneity in number, this line of study is specially taken up to find out whether karyotype differences can be used as an aid in their identification. Moreover, cursory observations by the author in this genus revealed the presence of a triploid species and one with $2n = 20$ chromosomes. These findings, the lack of any karyotype data, coupled with the horticultural importance of this genus led to the initiation of this investigation. The present paper deals with observations made on nineteen different species and varieties.
MATERIALS AND METHODS

Materials:
The present investigation was carried out on the following species and varieties.

1. *Ixora acuminate* Roxb.
2. *Ixora bandhuca* Roxb.
3. *Ixora chinensis* Lamb.
4. *Ixora coccinea* Linn.
5. *Ixora coccinea var. lutea* Roxb.
6. *Ixora colleri* hort.
7. *Ixora duffii* T. Moore.
8. *Ixora finlaysoniana* Wall.
10. *Ixora javanica* DC.
11. *Ixora multibracteata* Pearson.
12. *Ixora parviflora* hort.
13. *Ixora rosea* Wall.
14. *Ixora singaporensis* hort.
15. *Ixora stricta* Roxb.
16. *Ixora sub-sessilis* Wall.
17. *Ixora undulata* Roxb.
18. *Ixora vanduca* hort.
19. *Ixora westii* hort.

The species of *Ixora* are evergreen shrubs or undershrubs and occasionally small trees. In South East Asia there are about 168 species (BREMEKAMP, 1936–37, 1938–40). In India they are found all over the plains both in wild state and also under cultivation.

Out of the nineteen species and varieties investigated here, four were obtained from the University Science College gardens and the rest from the Imperial Nursery and the Globe Nursery. The plants were grown in the Botanical Garden of the Calcutta University in earthenware pots in a mixture of sand and soil.

Some of the species could not be identified in the Indian Botanic Garden, Sibpur. They have been incorporated in the paper with their nursery names (hort,) and their photographs have been attached herewith. (Ph. 1–8).