

## CHROMOSOME NUMBERS IN SOME RECENTLY INTRODUCED SPECIES OF PASSIFLORA IN AUSTRALIA

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### SUMMARY

The number  $2n = 12$  has been established in *P. penduliflora*, *P. coreacea*, *P. biflora*, *P. perfoliata*, *P. gracilis* and *P. warmingii*. The number  $2n = 18$  has been established for *P. cincinnata*, *P. umbilicata* and *P. coccinea*. The number  $2n = 20$  has been established for *P. foetida* var. *hispida*.

### INTRODUCTION

In a continuation of studies of the cytology of *Passiflora* species in Australia (Beal 1969), newly introduced species were examined and chromosome counts established or confirmed on species already reported upon. This paper reports the results of some studies made in 1970.

### MATERIALS AND METHODS

The newly introduced species examined and the source of the material are given in Table 1.

The root-tip and PMC preparations for determining chromosome numbers were made according to Darlington and La Cour (1962). Examination of mitosis was facilitated by placing root tips for 2 hr in a saturated solution of aqueous para-dichlorobenzene, which method has been used previously by the author (Beal 1969).

### RESULTS

Chromosome counts are shown in Table 1.

The number  $2n = 12$  has been established in *P. penduliflora* Bert., *P. coreacea* Juss., *P. biflora* Lam., *P. perfoliata* L., *P. gracilis* Jacq. and *P. warmingii* Mast., all of American origin. A total of 13 species with this number is now known

TABLE 1  
DETAILS OF SPECIES AND CHROMOSOME COUNTS

Species	Source of Material	Herbarium Number	Chromosome Number	
			n	2n
<i>P. penduliflora</i> Bert.	Jamaica	BRI 068018	6*	—
<i>P. coreacea</i> Juss.	Honduras	BRI 076884	6*	—
<i>P. biflora</i> Lam.	Honduras	BRI 076755	6*	—
<i>P. perfoliata</i> L.	Jamaica	BRI 073164	—	12*
<i>P. gracilis</i> Jacq.	Argentine	BRI 065481	6*	—
<i>P. warmingii</i> Mast.	John Innes Institute	BRI 065482	6*	—
<i>P. warmingii</i> Mast.	Argentine	BRI 063968	—	12
<i>P. capsularis</i> L.	Kew Gardens	BRI 072562	—	12
<i>P. suberosa</i> L.	New Guinea	BRI 073573	—	24
<i>P. suberosa</i> L.	U.S.A.	BRI 066063	—	24
<i>P. suberosa</i> L.	Argentine	BRI 066061	—	24
<i>P. cincinnata</i> Mast.	Brazil	BRI 074430	—	18*
<i>P. umbilicata</i> (Griseb.) Harms	Kew Gardens	BRI 074224	—	18*
<i>P. coccinea</i> Aubl.	Louisiana	BRI 071323	—	18*
<i>P. ligularis</i> Juss.	Turrialba	BRI 067863	9	—
<i>Passiflora</i> sp. aff. <i>P. racemosa</i> Brot.	Kew Gardens	BRI 066874	9	—
<i>P. foetida</i> L. var. <i>hispida</i> Killip ex Gleason	Jamaica	BRI 065483	10*	—

\* Previously uncounted.

(Darlington and Wylie 1955; Diers 1961; Beal 1969). This number is far more common than previously believed, probably because these species are not horticulturally interesting and have seldom been investigated.

The number  $2n = 18$  has been established in *P. cincinnata* Mast., *P. umbilicata* (Griseb.) Harms, and *P. coccinea* Aubl., all of American origin. This is the most common number recorded in the genus (Darlington and Wylie 1955; Beal 1969) and almost all the horticultural species occur in the  $2n = 18$  group.

A chromosome number of  $2n = 20$  was established for *P. foetida* L. var. *hispida* Killip ex Gleason.

Numbers were confirmed for *P. capsularis* ( $2n = 12$ ), *P. ligularis* and *Passiflora* sp. aff. *P. racemosa* ( $2n = 18$ ) and three entries of *P. suberosa* ( $2n = 24$ ).

#### REFERENCES

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