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First data on the chromosome number of Curculigo seychellensis Boj (Amaryllidaceae)

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Genetica. — *First data on the chromosome number of Curculigo seychellensis* Boj (*Amaryllidaceae*). Nota (*) del Socio CLAUDIO BARIGOZZI.

RIASSUNTO. — L'Autore descrive per la prima volta l'assetto cromosomico somatico di *Curculigo seychellensis* Boj, amarillidacea originaria dell'arcipelago delle Seychelles. Il numero cromosomico comprende 20 elementi.

The genus *Curculigo*, now included in the Family *Amaryllidaceae* (but formerly ascribed to the Family *Hypoxidaceae*), comprises few species living in the East. Two of them living in India, *C. orchioides* and *C. recurvata*, have been analysed for chromosome number (Sato 1938, Tjio 1940, Sharma and Gosh 1954, Raghavan 1957, Sharma and Bhattachariya 1960, Sharma and Chauduri 1964). *C. recurvata* is said to have 18 chromosomes in diploid condition (Sherman and Gosh 1954, Sharma and Chauduri 1964, Hsu 1967); *C. orchioides* has 18 chromosomes according to Sharma and Bhattacharya, (1960) but 36 according to Sharma and Gosh (1954) and to Sharma and Chaudury (1964).

According to Tjio (1948) *C. sumatrana*, has 18. *C. seychellensis*, living in the Archipelago of the Seychelles Islands, does not result to have been submitted to any chromosomal analysis. During a visit to the Islands supported financially by the Academy of the Lincei (April 1977), cuttings were made for obtaining root tips after radication. These were treated as indicated below, for chromosome analysis. Root tips were fixed in ethyl alcohol and acetic acid (3 : 1) for 24 h. Hydrolysis in 1 N HCl at 60° lasted 8 minutes and was followed by staining in Schiff reagent for 2 h in the dark. After rinsing in tap water the slide was stained in the presence of acetic orcein.

The species (the only one living in the Seychelles Archipelago) was identified on the basis of the vernacular name (coco marron), after Bailey (1971). The chromosome set of *C. seychellensis* comprises 20 elements. The conclusion is thus that there is a difference in chromosome number between this species and those previously studied (Pl. I, *a* and *b*).

As far as the chromosome shape and structure are concerned, it is to be pointed out that during prophase almost all pairs exhibit considerable heteropycnotic segments.

These can be present in one or both arms. During prometaphase the heteropycnotic segments tend to form condensed portions resembling prochromo-

(*) Presentata nella seduta del 12 maggio 1979.

somes. During metaphase the longest pair is clearly submediocentric or mediocentric. One pair is dot-like. The remaining 16 chromosomes are difficult to order into pairs.

One peculiar element is worthy of note where the very long primary constriction connects two conspicuous heteropycnotic terminal segments. In all cells where it was detectable (especially in prometaphase) this element seems to be without a homologue. As all data derive from a single plant the significance of this observation remains obscure.

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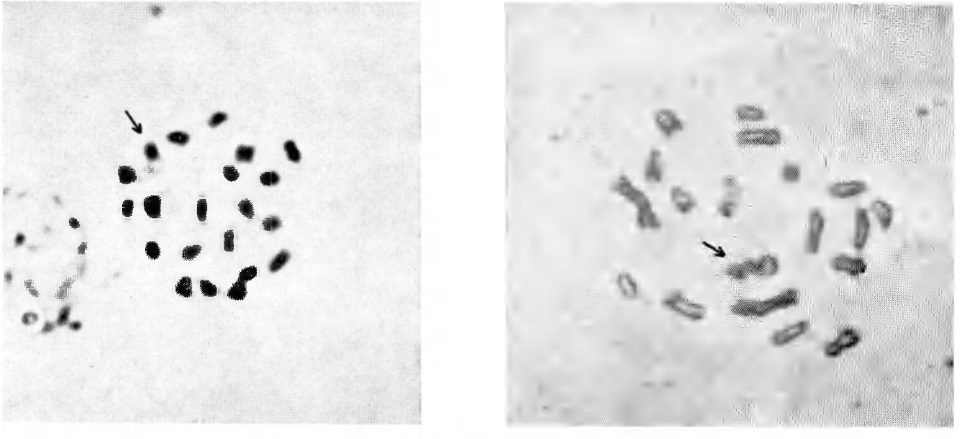

a *b*

a) Prometaphase. The arrow indicates the chromosome with two terminal heteropycnotic segments.

b) Metaphase. The arrow indicates the same chromosome as in *a*) partially hiding one of the dot-like chromosomes.